Hanwha Techwin

WISENET

Product Line-up 2021 H2

www.hanwha-security.eu

Hanwha

Hanwha is ranked as the 8th largest corporation in South Korea based on asset size, and is a Fortune 500 company. With 70 affiliates and 325 global networks, Hanwha's global businesses span the manufacturing and construction; finance, and service and leisure industries. With its 30 years of technological knowledge and expertise in optical and image processing, Hanwha Techwin is leading the CCTV and video surveillance market.

CORE TECHNOLOGIES

Optical Design and Image Processing Technologies

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

SoC Design Technology

Outstanding level of SoC design capabilities evident in our Wisenet SoC is equipped with diverse analytics technologies.

- **AI based Analytics**
  - Object detection and classification (Person, Face, Vehicle, License Plate)
  - Face mask detection
  - Social distancing detection
  - Attribute
  - BestShot
- **Intelligent Analytics**
  - Motion Detection
  - Tampering
  - Defocus Detection
  - Virtual Line
  - Enter/Exit
  - Appear/Disappear
  - Digital Auto tracking
  - Directional Detection
  - Fog Detection
  - Loitering
  - Face Detection
  - Object Detection
- **Sound Classification**
- **Audio Playback**
- **Audio Detection**
- **Shock Detection**

Intelligent Analytics

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

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PRODUCT NAMING RULE

Camera

XNP-6320RH

- Series Name: P: Premium (4K, AI, Multisensor) / X: Versatile (WN7) / Q: Quality (Entry) / H: Advanced (AHD) / T: Vertical (Special) / S: Legacy (Existing) / L: Affordable
- 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
- Grade: Null: Basic / E: Entry / L: Lite / A: AI
- Total Resolution: 1: ~VGA / 2: BLC CCD / 3: WDR CCD / 4: SVGA, 1/2" / 5: 1M / 6: 2M / 7: 3 ~ 4M / 8: 5 ~ 7M / 9: 8M ↑
- 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 M-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: Counting or CVBS / E: Explosion Proof / F: Flush or SFP LC (Fibre Channel) / L: Laser / H: Housing / M: Mobile (M-12 connector) / Q: Quad eye / D: Dual eye / R: IR / S: Stainless Steel / T: Thermal / V: Metal cover / W: White colour, Wiper / Z: PTRZ

Decoder/Encoder

SPD-1600R

- Series Name: S: Legacy (Existing)
- Product Type: P: Peripheral
- Type: D: Decoder / E: Encoder
- No. of Monitors: 1 ~ 99
- Performance: [Decoder] 5: ~64ch / 6: 65 ~144ch / 7: 145 ~288ch / 8: 289 ~576ch / 9: 577 ~1152ch / [Encoder] 01: SD / 10: Real at 1080P
- Version: 0 ~ 9
- Extra Feature: B: Blade (Card) / R: Rack / Null: Box

Recorder

PRN-6410DB4-10TB

- Series Name: P: Premium / X: Versatile / Q: Quality (16ch ↓) / H: Advanced (AHD) / T: Vertical (Special) / S: Legacy (Existing)
- Product Type: R: Recorder
- Type: D: DVR / X: Hybrid / M: Mobile / N: NVR / S: S/W / P: PC PoE NVR
- Channel / Mbps: 4: 4CH / 8: 8CH / 16: 16CH / 32: 32CH / 64: 64CH / 128: 128CH
  - [Appliance : Max Mbps] 1: 100 ~ 199Mbps / 2: 200 ~ 299Mbps / 3: 300 ~ 399Mbps / 4: 400 ~ 499Mbps / 5: 500 ~ 599Mbps / 60: 600 ~ 699Mbps
  - 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
- Null: Null / B: HDD Bay
- Null: Null / 1: 4 Bay / 2: 8 Bay / 3: 12 Bay / 4: 16 Bay / 5: 20 Bay / 6: 24 Bay
- Null: Null / -: HDD
- Capacity: 3G: 320GB / 5G: 520GB / 1T ~ 9T: 1 ~ 9TB / 10 ~ 99: 10 ~ 99TB

Monitor

SMT-4933

- Series Name: S: Legacy (Existing)
- Product Type: M: Monitor
- Appearance: T: LED
- Grade: Null: Default
- Panel Size: Inch
- Input: 0: BNC / 1: VGA / 2: VGA + BNC / 3: etc.
- Version: 0 ~ 9
- Function: Null: Normal / N: NVR

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COMING SOON

NETWORK

Cameras

ONV-9081R/ONO-9081R
OSSA Cameras

PNB-A9001LP/PNV-A9081RLP/
PNO-A9081RLP
Wisenet Road AI Cameras

NVR

XRN-1620SB1/XRN-1620B2/
XRN-820S/XRN-420S/QRN-430S
X SERIES 16/8CH, 4CH NVRs

SPA-C100/SPA-C110/SPA-W100/
SPA-H100/SPA-M1000/
SPA-D1000/SPA-S1000
Network Audio

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wisenet P series

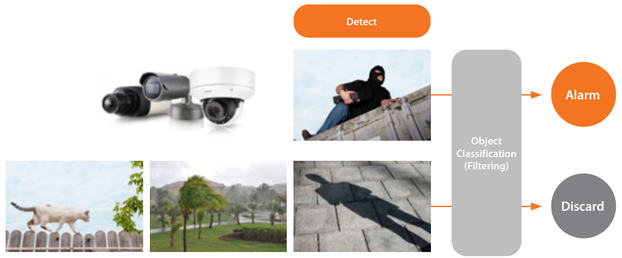
Premium cameras with the most advanced technology

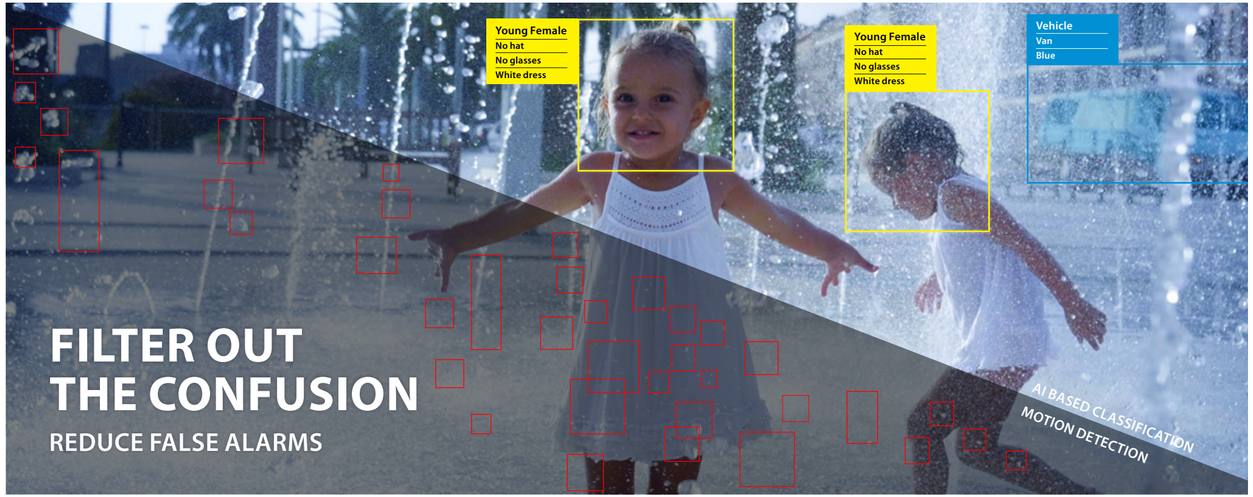
Wisenet P series, the ultimate premium cameras designed with the most advanced technology, delivers users an outstanding video surveillance solution.
From bullet cameras to multi-sensor cameras, the P series have a wide range of products optimised for applications which require extreme details and wide area coverage.

AI Cameras

New deep learning based technology

False alarm reduction through Wisenet's deep learning based algorithm, which supports object classification. It can discard waving trees, video noise, raining, moving shadow, irreverent objects (dog, plastic bag, etc).





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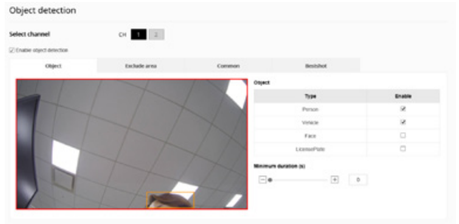
AI camera three main functions

New Object Detection

- New event based on the AI algorithm
- Detection of four object types simultaneously (Person/Vehicle/Face/License plate)
- Real-time event trigger (new SUNAPI protocol)

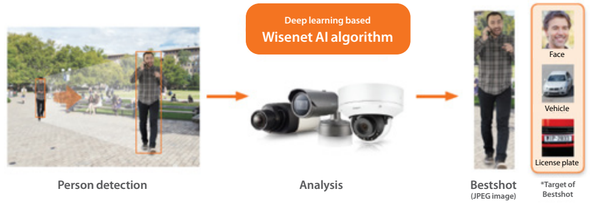


Attributes for forensic search

- AI camera sends metadata including attributes of objects, coordinates information and setting value to backend server
- Person, Face, Vehicle category and so on

Real-time object Image capture for re-identification

- BestShot: Best crop image of "Person, Vehicle, Face, License plate" in the scene
- JPEG snapshot type, select option
- This function helps to load distribution of backend analysing server
- Useful with license plate analysing or face analysing server



New AI camera lineup

	4K resolution	2MP resolution
BOX	PNB-A9001	PNB-A6001
BULLET	PNO-A9081R	PNO-A6081R
VANDAL	PNV-A9081R	PNV-A6081R
DOME	PND-A9081RV	PND-A6081RV
DOME (FLUSH)	PND-A9081RF	PND-A6081RF

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4K Premium Cameras

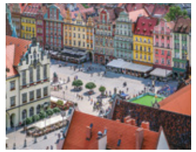
Exceptional Image Quality of 4K Ultra HD

The Wisenet P series provides an enhanced surveillance system by producing superior 4K Ultra HD image quality. 4K Ultra HD has four times the resolution of standard 1080p, which means it is able to show more detail.

PNM-9322VQP, PNM-9085RQZ,
PNO-A9081R, PNV-A9081R

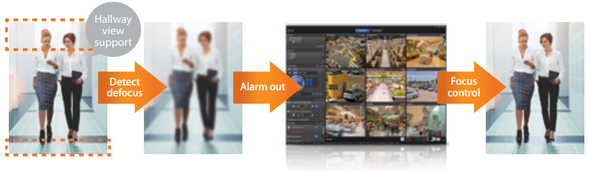
Digital Auto Tracking

During quieter times, especially at night time, digital auto tracking can be used to detect moving objects, including people. Digital auto tracking is ideal for tracking movement in low traffic areas, such as parks or squares at night.



Defocus Detection & Hallway View

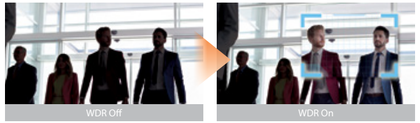
The Wisenet P series supports defocus detection, which helps to identify when an image is out of focus and significantly improves efficiency. The user can also adjust the optimal focus remotely via the network, reducing the installation/optimisation time of the camera.



True WDR (120dB) & P-Iris

The true WDR function built into the Wisenet P series provides enhanced picture quality, by reducing motion blur and processing clearer images.

P-Iris optimises the iris function when multiple lighting conditions exist in a single scene, which results in images with better contrast, clarity, resolution and depth of field. This optimisation of the resolution at both the centre and corner of the image, as well as the depth of field and shutter speed, provide increased image sharpness especially effective in megapixel cameras.



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Multi-directional Cameras

Monitor wide areas with one camera

Wisenet P series multi-sensor cameras are equipped with multiple sensors, which means they can effectively monitor wide areas with a single camera.

- Multi-sensor cameras can simultaneously cover a full 360° area without any blind spots. When combined with a built-in PTZ camera (PNM-9322VQP), detailed images can be obtained through the use of an effective zoom function.
- Panoramic cameras can provide a wide, panoramic view of any area by stitching together and merging images from multiple onboard sensors.

By installing Wisenet multi-sensor cameras, the cost of system installation and maintenance is significantly reduced.

Multi-directional Cameras

PNM-7002VD
4MP (2M x 2ea)
with selectable lenses

PNM-9000VD
10MP (5M x 2ea)
with selectable lenses

PNM-9002VQ
Max. 20MP (5M/2M x 4ea)
with selectable lenses

PNM-8082VT
6MP (2M x 3ea)

PNM-9084QZ
8MP (2M x 4ea)

PNM-9084RQZ / 9085RQZ
8MP (2M x 4ea) /
20MP (5M x 4ea)

Multi-directional Camera with PTZ

PNM-9322VQP
Max. 22MP
(2M 32x PTZ + 5M/2M x 4ea)
with selectable lenses

Panoramic Cameras

PNM-9022V
7.3MP (2M x 4ea)

PNM-9030V
15MP (5M x 4ea)

PNM-9031RV
15MP IR (5M x4ea)

Multiple view modes

Choose from a variety of viewing options to suit your needs by using the broad line-up of Wisenet multi-sensor cameras.

High-resolution Multi-directional Camera

- PNM-7002VD 4MP (2M x 2ea) with dual lens
- PNM-9000VD 10MP (5M x 2ea) with dual lens

The PNM-7002VD and PNM-9000VD are able to simultaneously monitor two areas through multiple angles by installing two camera lenses in one camera, which removes the needs for multiple cameras and reduces TCO (Total Cost of Ownership).

2CH Multi-directional Camera

PNM-7002VD
PNM-9000VD

High-resolution compatible fixed lenses

Depending on the desired direction and viewing angle, you can select 2MP (2.4, 2.8, 3.6, 6mm) and 5MP (3.7, 4.6, 7mm) lenses. The high resolution video enables clear and sharp monitoring. By installing two lenses, it's possible to achieve a viewing angle up to 270 degrees, making it ideal for monitoring large open spaces, such as parks, parking lots and shopping malls.

SLA-2M2402D 2.4mm Fixed lens

SLA-2M3602D 3.6mm Fixed lens

SLA-2M6002D 6.0mm Fixed lens

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Four cameras in one

- PNM-9084QZ 8MP (2M x 4ea)
- PNM-9084RQZ/9085RQZ 8MP (2M x 4ea) / 20MP (5M x 4ea)
- PNM-9002VQ Max. 20MP (5M/2M x 4ea) with selectable lens modules

Multi-directional cameras have four sensors in one camera. The four sensors in the multi-directional camera can move independently of one another, enabling users to monitor a complete 360° view simultaneously without any blind spots.

PNM-9084QZ

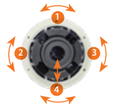
PNM-9084RQZ/9085RQZ

4CH Multi-directional Camera

PNM-9002VQ

Flexible set-up

PNM-9002VQ allows users to freely interchange lens modules between 2MP and 5MP according to the required direction and FoV in various installation environments. With just 1 camera, users can monitor multi directions, saving the cost.

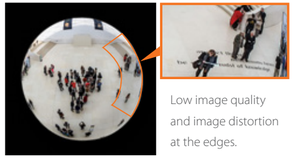


Quad Mode

Center Mode

Natural and clearer image

Conventional fisheye cameras can occasionally suffer from low quality or distortion at the edge of the image. However, the multi-directional camera with 4 sensors does not distort the image, delivering a natural, clearer image all round.



Fisheye Camera

Low image quality and image distortion at the edges.

Multi-directional Camera

Clearer image and almost no distortion at the edges.

Optimised design for indoor and outdoor environments

Wisenet P series panoramic and multi-directional cameras are suitable for monitoring any location or environment. They are ideal for applications such as warehouses, shopping mall entrances, station concourses and airports supporting IP66, IK10.

- Warehouse
- Mall entrance
- City Surveillance
- Airport
- Parking lot
- Stadium
- Square
- Distribution centre
- Crossroads
- Train station

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	AI CAMERA	**AI** CAMERA	**AI** CAMERA	**AI** CAMERA	**AI** CAMERA
	PNO-A9081R 4K AI IR Bullet Camera	**PNV-A9081R** 4K AI IR Vandal Dome Camera	**PND-A9081RV** 4K AI IR Dome Camera	**PND-A9081RF** 4K AI IR Dome Camera	**PNB-A9001** 4K AI Box Camera
Imaging Device	1/1.8" 8MP CMOS	1/1.8" 8MP CMOS	1/1.8" 8MP CMOS	1/1.8" 8MP CMOS	1/1.8" 8MP CMOS
Min. Illumination	Colour : 0.05Lux(F1.6) BW : 0Lux(IR LED on)	Colour : 0.05Lux(F1.6) BW : 0Lux(IR LED on)	Colour : 0.05Lux(F1.6) BW : 0Lux(IR LED on)	Colour : 0.05Lux(F1.6) BW : 0Lux(IR LED on)	Colour : 0.03Lux(F1.2, 1/30sec)
Video Output	CVBS : 1.0 Vp-p	CVB S: 1.0 Vp-p	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p
Focal Length	4.5~10mm(2.2x) motorized varifocal	4.5~10mm(2.2x) motorized varifocal	4.5~10mm(2.2x) motorized varifocal	4.5~10mm(2.2x) motorized varifocal	-
Angular Field of View	H: 101.4°(Wide)~45.5°(Tele) / V: 53.6°(Wide)~25.5°(Tele) / D: 120.7°(Wide)~52.3°(Tele)	H: 101.4°(Wide)~45.5°(Tele) / V: 53.6°(Wide)~25.5°(Tele) / D: 120.7°(Wide)~52.3°(Tele)	H: 101.4°(Wide)~45.5°(Tele) / V: 53.6°(Wide)~25.5°(Tele) / D: 120.7°(Wide)~52.3°(Tele)	H: 101.4°(Wide)~45.5°(Tele) / V: 53.6°(Wide)~25.5°(Tele) / D: 120.7°(Wide)~52.3°(Tele)	-
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	30m(98.42ft)	30m(98.42ft)	30m(98.42ft)	30m(98.42ft)	-
Day & Night	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)
Analytics	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification
Business Intelligence	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	8MP/30fps	8MP/30fps	8MP/30fps	8MP/30fps	8MP/30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -30°C	-40°C ~ +55°C(-40°F ~ +131°F) -40°C ~ +60°C (-13°F ~ +140°F) * Start up above -30°C	-25°C ~ +50°C (-13°F ~ +122°F) / IR LED on -25°C ~ +55°C (-13°F ~ +131°F) / IR LED off	-25°C ~ +50°C (-13°F ~ +122°F) / IR LED on -25°C ~ +55°C (-13°F ~ +131°F) / IR LED off	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, Plenum rate(UL2820)	-
Power Consumption	PoE+ : Max 25.50W, typical 21.00W 12VDC : Max 21.50W, typical 17.00W	PoE+ : Max 25.50W, typical 21.00W 12VDC : Max 21.50W, typical 17.00W	PoE+ : Max 24.50W, typical 20.00W 12VDC : Max 20.50W, typical 16.00W	PoE+ : Max 24.50W, typical 20.00W 12VDC : Max 20.50W, typical 16.00W	PoE+ : Max 19.50W, typical 15.00W 12VDC : Max 16.50W, typical 12.00W
Dimensions (WxHxD) / Weight	Ø91.0 x 368.6mm (3.58" x 14.51") (Without sunshield), Weight : 2.48Kg (5.47lb)	Ø180 x 125mm(7.09" x 4.92"), Weight : 1.90Kg (4.19lb)	Ø160 x 125mm(6.30" x 4.92"), Weight : 1.60Kg (3.53lb)	Ø205 x 163mm(8.07" x 4.92"), Weight : 1.95Kg (4.30lb)	73.1 x 66.6 x 147.8mm, Weight : 0.70Kg (1.54lb)
Additional Features	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)

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	AI CAMERA NEW	AI CAMERA NEW	AI CAMERA NEW	AI CAMERA NEW	AI CAMERA NEW
	PNO-A6081R 2MP Network AI IR Bullet Camera	**PNV-A6081R** 2MP Network AI IR Vandal Dome Camera	**PND-A6081RV** 2MP Network AI IR Dome Camera	**PND-A6081RF** 2MP Network AI IR Dome Camera	**PNB-A6001** 2MP Network AI Box Camera
Imaging Device	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/2" CMOS
Min. Illumination	Colour: 0.007Lux(F1.3) BW: 0Lux(IR LED on)	Colour: 0.007Lux(F1.3) BW: 0Lux(IR LED on)	Colour: 0.007Lux(F1.3) BW: 0Lux(IR LED on)	Colour: 0.007Lux(F1.3) BW: 0Lux(IR LED on)	Colour: 0.006Lux(F1.2) B/W : 0.0006Lux(F1.2)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	4.38~9.33mm(2.13x) motorized varifocal	4.38~9.33mm(2.13x) motorized varifocal	4.38~9.33mm(2.13x) motorized varifocal	4.38~9.33mm(2.13x) motorized varifocal	-
Angular Field of View	H:103.1°(Wide) ~ 44.5°(Tele) / V:54.2°(Wide) ~ 24.9°(Tele) / D:124°(Wide) ~ 51.1°(Tele)	H:103.1°(Wide) ~ 44.5°(Tele) / V:54.2°(Wide) ~ 24.9°(Tele) / D:124°(Wide) ~ 51.1°(Tele)	H:103.1°(Wide) ~ 44.5°(Tele) / V:54.2°(Wide) ~ 24.9°(Tele) / D:124°(Wide) ~ 51.1°(Tele)	H:103.1°(Wide) ~ 44.5°(Tele) / V:54.2°(Wide) ~ 24.9°(Tele) / D:124°(Wide) ~ 51.1°(Tele)	-
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	40m(131.23ft), Wise IR	40m(131.23ft), Wise IR	40m(131.23ft), Wise IR	40m(131.23ft), Wise IR	-
Day & Night	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR, WiseNR II (using AI engine)	SSNR, WiseNR II (using AI engine)	SSNR, WiseNR II (using AI engine)	SSNR, WiseNR II (using AI engine)	SSNR, WiseNR II (using AI engine)
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	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification	Object detection (Person/Vehicle/Face/License plate), Audio detection, Sound classification
Business Intelligence	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based, on AI engine	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out	Selectable(mic in/line in/built-in mic) / Line out	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps
WiseStream	WiseStream II, WiseStream III	WiseStream II, WiseStream III	WiseStream II, WiseStream III	WiseStream II, WiseStream III	WiseStream II, WiseStream III
Streaming	Up to 5 profiles	Up to 5 profiles	Up to 5 profiles	Up to 5 profiles	Up to 5 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform
Operating Temperature	-50°C ~ +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°	-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	Ø91.0x368.6mm (3.58"x 14.51") (Without sunshield), 2.48Kg (5.47lb)	Ø180x125mm(7.09x4.92"), 1.90Kg (4.19lb)	Ø160x125mm(6.30x4.92"), 1.60Kg (3.53lb)	Ø205x163mm(8.07x4.92"), 1.95Kg (4.30lb)	81x67x165mm(3.19x2.64x6.48"), 0.88kg(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)

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	NEW		NEW				
	PNM-9031RV 15MP IR 192° Panoramic Camera	**PNM-9030V** 15MP 180°/220° Panoramic Camera	**PNM-9022V** 2MP x 4CH H.265 Panoramic 209° Camera	**PNM-9085RQZ** 20MP IR Multi-Directional Camera	**PNM-9084RQZ** 8MP IR Multi-Directional Camera	**PNM-9084QZ** 8MP Multi-directional Camera	**PNM-8082VT** 2MP x 3CH H.265 Multi- directional Camera
Imaging Device	1 / 2.8" 5MP CMOS x 4CH	1 / 2.8" 5MP CMOS x 4CH	1/2.8" CMOS x 4	1/1.8" 5MP CMOS x 4CH	1/2.8" 2MP CMOS x 4CH	1/2.8" 2MP CMOS x 4CH	1/2.8" CMOS x 3CH
Min. Illumination	Color: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED on)	Colour : 0.15Lux (F2.0) B/W : 0.01Lux (F2.0)	Colour: 0.03Lux(F1.6, 1/30sec)	Colour: 0.11lux(F1.6,30 IRE) BW: 0Lux(IR LED on)	Colour: 0.05lux(F1.6,30 IRE) BW: 0Lux(IR LED on)	Colour : 0.08lux(F2.2) BW : 0.008lux(F2.2)	Colour: 0.04lux(F2.2, 1/30sec) BW: 0.004lux(F2.2, 1/30sec)
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B,	-	-	-	CVBS: 1.0 Vp-p
Focal Length	4.3mm Fixed	4mm fixed	2.8mm fixed focal x 4	4.13 ~ 9.4mm (2.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal	3 ~ 6mm (2x) motorized varifocal	3~6mm(2x) motorized varifocal
Angular Field of View	H: 192°, V: 65°	[180° mode] H : 180° / V : 70° [220° mode] H : 220° / V : 52°	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: 109.0°(Wide)~33.2°(Tele), V: 57.4°(Wide)~18.7°(Tele), D: 132.0°(Wide)~38.0°(Tele)	H : 107° (Wide) ~ 56.3° (Tele) / V : 57° (Wide) ~ 31.5° (Tele) / D : 126° (Wide) ~ 64.3° (Tele)	H: 107°(Wide)~56.3°(Tele) / V: 57°(Wide)~31.5°(Tele) / D: 126°(Wide)~64.3°(Tele)
Pan / Tilt / Rotate	0° ~ 355° / 0° ~ 60° / -	0° ~ 355° / 0° ~ 60° / -	0°~355° / 0°~60° / -	0~365° / 30~90° / 0~90°	0~365° / 30~90° / 0~90°	0° ~ 360° / 0° ~ 90° / 0° ~ 90°	0~360° / 0~73° / 0~90°
IR Viewable Length	20m (65.6ft), WiseIR	-	-	30m (98.43ft)	30m (98.43ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	-	120dB	120dB	120dB	extreme WDR (150dB)
Digital Noise Reduction	SSNRV	SSNR III	SSNRV	SSNR V	SSNR V	SSNR V	SSNRV
Digital Image Stabilization	-	-	-	Support	Support	Support	Support
Analytics	Intelligent analytics, Audio detection	Intelligent analytics, Audio detection, Sound classification	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Intelligent analytics, Audio detection, Motion detection, Sound Classification	Intelligent analytics, Audio detection, Motion detection, Sound Classification	Intelligent analytics Audio detection	Intelligent analytics
Business Intelligence	Heatmap	Heatmap	Heatmap	-	-	-	-
Alarm I/O	Selectable 2 port	1 / 1	Selectable 2 port	1 / 1	1 / 1	1 / 1	-
Audio I/O	Selectable (mic in/line in) / Line out	Line in / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	15MP / 20fps	15.5MP / 30fps	-	4x 5MP / 30fps	4x 2MP / 60fps	4x 2MP / 60fps	3x 2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 4 Profiles	Up to 5 or 3 profiles for each CH	Up to 10 Profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF Profile S/G/T, SUNAPI (HTTP API), Wisenet open platform	ONVIF profile S/T, SUNAPI, Wisenet Open Platform	ONVIF profile S/T, SUNAPI, Wisenet Open Platform	ONVIF profile S/T, SUNAPI, Wisenet Open Platform	ONVIF Profile S/G/T SUNAPI(HTTP API)
Operating Temperature	-40°C~+55° (-40°F ~ +131°F) / * Start up above -30°C	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -30°C (-22°F)	Normal : -40°C~+55° (-40°F ~ +131°F) Intermittent : -40°C~+60°C (-40°F ~ +140°F) Less than 95% RH (Non-condensing)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C~+55°C(-40°F~+131°F) / Less than 95% RH (Non condensing) *Start up should be above at -35°C
Certification	IP66, IK10, NEMA4X	IP66, IK10	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE+: Max (25.5)W 12VDC: Max (16)W	PoE+ : Max 25.5W 12VDC : Max 21.0W	PoE+: Max 18W 12VDC: Max 16W	HPoE : Max60W 12VDC: TBD	HPoE : Max 60W 12VDC: TBD	HPoE : Max 35W	PoE+
Dimensions (WxHxD) / Weight	253x170mm 2.6Kg	Ø253 x H165mm (Ø9.96" x 6.5"), 3.2Kg (7.1lb)	Ø253x165mm (9.96"x6.5") 3200g	Ø315 x 145.9mm	Ø315 x 145.9mm	Ø251 x 116.5mm (Ø9.88" x 4.59") 3Kg (6.6 lb)	Ø251x116.5mm 3Kg
Additional Features	-	Defog	-	Motorized PTRZ, Hallway View, Defog	Motorized PTRZ, Hallway View, Defog	Hallway view, Defog	Defog

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

SLA-T1080FA
2MP lens for PNM-9000QB

SLA-T2480A
2MP lens for PNM-9000QB

SLA-T2480VA
2MP lens for PNM-9000QB

SLA-T4680A
2MP lens for PNM-9000QB

SLA-T4680VA
2MP lens for PNM-9000QB

Imaging Device	-	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Min. Illumination	-	Colour : 0.3Lux (F1.6) B/W : 0.3Lux (F1.6)	Colour : 0.45Lux (F2.0) B/W : 0.45Lux (F2.0)	Colour : 0.45Lux (F2.0) B/W : 0.45Lux (F2.0)	Colour : 0.6Lux (F2.5) B/W : 0.6Lux (F2.5)	Colour : 0.6Lux (F2.5) B/W : 0.6Lux (F2.5)
Video Output	HDMI(1920x1080, Single/Quad view)	-	-	-	-	-
Focal Length	-	1.6mm fixed	2.4mm fixed	2.4mm fixed	4.6mm fixed	4.6mm fixed
Angular Field of View	-	H: 187° / V: 113.9°	H: 138° / V: 73° / D: 165°	H: 138° / V: 73° / D: 165°	H: 73° / V: 39° / D: 85°	-
Pan / Tilt / Rotate	-	-	-	-	-	-
IR Viewable Length	-	-	-	-	-	-
Day & Night	Auto (Electrical)	-	-	-	-	-
Wide Dynamic Range	120dB	-	-	-	-	-
Digital Noise Reduction	SSNRV	-	-	-	-	-
Digital Image Stabilization	Support	-	-	-	-	-
Analytics	Intelligent analytics	-	-	-	-	-
Business Intelligence	-	-	-	-	-	-
Alarm I/O	2 / 2	-	-	-	-	-
Audio I/O	Selectable(mic in/line in) / Line out	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-	-	-
Resolution / Max. Frame Rate	4x 2MP / 30fps	-	-	-	-	-
WiseStream	WiseStream II	-	-	-	-	-
Streaming	Up to 10 profiles	-	-	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-	-	-
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API)	-	-	-	-	-
Operating Temperature	-10°C ~ +45°C(-40°F ~ +113°F) / Less than 95% RH (Non condensing)	-	-	-	-	-
Certification	-	-	-	-	-	-
Power Consumption	PoE : Max 22.00W 12V DC : Max 19.00W	-	-	-	-	-
Dimensions (WxHxD) / Weight	200(W)x37(H)x146(D)mm 715g	Ø35xL68.9mm 430g	Ø24xL49.8mm 318g	W30xH27.9xD45mm 328g	Ø24xL49.8mm 310g	W30xH27.9xD45mm 321g
Additional Features	-	-	-	-	-	-

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PNM-9322VQP
Max. 20MP Multi-directional + 2MP 32x PTZ

SLA-5M7000P
5MP lens for PNM-9322VQP

SLA-5M4600P
5MP lens for PNM-9322VQP

SLA-5M3700P
5MP lens for PNM-9322VQP

SLA-2M6000P
2MP lens for PNM-9322VQP

SLA-2M3600P
2MP lens for PNM-9322VQP

SLA-2M2800P
2MP lens for PNM-9322VQP

SLA-2M2400P
2MP lens for PNM-9322VQP

SLA-2M1200P
2MP lens for PNM-9322VQP

Imaging Device	1/2.8" CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour: 0.055Lux (F2.0, 1/30sec) B/W: 0.055Lux (F2.0, 1/30sec)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	CVBS : 1.0 Vp-p	-	-	-	-	-	-	-	-
Focal Length	1~4CH: Optional lens 5CH: 4.44~142.6mm(32x) zoom	7.0mm fixed	4.6mm fixed	3.7mm fixed	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed	12mm fixed
Angular Field of View	H 61.8°(Wide)~2.19°(Tele), V 36.2°(Wide)~1.24°(Tele) (PTZ)	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°	H : 50.4° / V : 28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122.0°	H : 135.4° / V : 71.2° / D : 161.6°	H : 26.3° / V : 14.9° / D : 30.0°
Pan / Tilt / Rotate	360° Endless / 190° (-5°~185°) (PTZ)	±90° / +12° ~ +93° / ±180°	±90° / +21°~ +85° / ±180°	±90° / +36° ~ +73° / ±180°	±90° / +10° ~ +95° / ±180°	±90° / +22° ~ +84° / ±180°	±90° / +26° ~ +80° / ±180°	±90° / +52° ~ +56° / ±180°	±90° / +10° ~ +97° / ±180°
IR Viewable Length	-	-	-	-	-	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB (2MP), 120dB (5MP)	120dB	120dB	120dB	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	-	-	-	-	-	-	-	-
Digital Image Stabilization	Support	-	-	-	-	-	-	-	-
Analytics	Intelligent analytics	-	-	-	-	-	-	-	-
Business Intelligence	-	-	-	-	-	-	-	-	-
Alarm I/O	1 / 2	-	-	-	-	-	-	-	-
Audio I/O	Selectable(mic in/line in), Line out	-	-	-	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-	-	-	-	-	-
Resolution / Max. Frame Rate	2MP / 60fps, 5MP / 30fps	-	-	-	-	-	-	-	-
WiseStream	WiseStream II	-	-	-	-	-	-	-	-
Streaming	Up to 10 Profiles	-	-	-	-	-	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-	-	-	-	-	-
Application Programming Interface	ONVIF Profile S, SUNAPI(HTTP API)	-	-	-	-	-	-	-	-
Operating Temperature	'-35°C~+55°C (-31°F ~ +131°F) Less than 90% RH	-	-	-	-	-	-	-	-
Certification	IP66, IK10	-	-	-	-	-	-	-	-
Power Consumption	HPoE: Max 65W	-	-	-	-	-	-	-	-
Dimensions (WxHxD) / Weight	Ø367.8x335.7mm (Ø144.8"x132.2") 7.05kg(15.54lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)
Additional Features	Exchangeable 4ea x 2MP / 5MP lens modules, Hallway view, Defog	-	-	-	-	-	-	-	-

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	PNM-9002VQ Max. 20MP Multi-directional Camera	**SLA-5M7000Q** 5MP lens for PNM-9000VQ	**SLA-5M4600Q** 5MP lens for PNM-9000VQ	**SLA-5M3700Q** 5MP lens for PNM-9000VQ	**SLA-2M6000Q** 2MP lens for PNM-9000VQ	**SLA-2M3600Q** 2MP lens for PNM-9000VQ	**SLA-2M2800Q** 2MP lens for PNM-9000VQ	**SLA-2M2400Q** 2MP lens for PNM-9000VQ
Imaging Device	-	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	CVBS 1.0 Vp-p	-	-	-	-	-	-	-
Focal Length	-	7.0mm fixed	4.6mm fixed	3.7mm fixed	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed
Angular Field of View	-	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°	H : 50.4° / V : 28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122.0°	H : 135.4° / V : 71.2° / D : 161.6°
Pan / Tilt / Rotate	-	±90° / 40° ~ 89° / ±180°	±90° / 50° ~ 80° / ±180°	±90° / 59° ~ 66° / ±180°	±90° / 30° ~ 89° / ±180°	±90° / 37° ~ 89° / ±180°	±90° / 40° ~ 89° / ±180°	±90° / 62° / ±180°
IR Viewable Length	-	-	-	-	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB (2MP), 120dB (5MP)	120dB	120dB	120dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	-	-	-	-	-	-	-
Digital Image Stabilization	Support	-	-	-	-	-	-	-
Analytics	Intelligent analytics	-	-	-	-	-	-	-
Business Intelligence	-	-	-	-	-	-	-	-
Alarm I/O	-	-	-	-	-	-	-	-
Audio I/O	-	-	-	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-	-	-	-	-
Resolution / Max. Frame Rate	5MP / 30fps, 2MP / 60fps	-	-	-	-	-	-	-
WiseStream	WiseStream II	-	-	-	-	-	-	-
Streaming	Up to 10 Profiles	-	-	-	-	-	-	-
Edge Storage	SD/SDHC/SDXC	-	-	-	-	-	-	-
Application Programming Interface	ONVIF Profile S/T, SUNAPI (HTTP API)	-	-	-	-	-	-	-
Operating Temperature	-40°C ~ +55°C(-40°F ~ +131°F) / Less than 90% RH	-	-	-	-	-	-	-
Certification	IP66, IK10	-	-	-	-	-	-	-
Power Consumption	PoE+: Max 25.5W	-	-	-	-	-	-	-
Dimensions (WxHxD) / Weight	Ø253mmx130mm, 3000g	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07 lb)
Additional Features	Exchangeable 4ea x 2MP / 5MP lens modules, Hallway view, Defog	-	-	-	-	-	-	-

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	PNM-9000VD 10MP Multi-directional Camera	**SLA-5M7000D** 5MP lens for PNM-9000VD	**SLA-5M4600D** 5MP lens for PNM-9000VD	**SLA-5M3700D** 5MP lens for PNM-9000VD	**PNM-7002VD** 2MP x 2CH Multi-directional Camera	**SLA-2M6002D** 2MP lens for PNM-7002VD	**SLA-2M3602D** 2MP Lens for PNM-7002VD	**SLA-2M2802D** 2MP Lens for PNM-7002VD	**SLA-2M2402D** 2MP lens for PNM-7002VD
Imaging Device	-	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	-	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	-	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	CVBS 1.0 Vp-p	-	-	-	CVBS 1.0 Vp-p	-	-	-	-
Focal Length	-	7.0mm fixed	4.6mm fixed	3.7mm fixed	-	6.0mm fixed lens	3.6mm fixed lens	2.8mm fixed lens	2.4mm fixed lens
Angular Field of View	-	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°	-	H: 50.4° / V: 28.8° / D: 58.1°	H: 94.8° / V: 49.3° / D: 114.3°	H:107.4° / V:62.2° / D:122.0°	H:135.4° / V:71.2° / D:161.6°
Pan / Tilt / Rotate	-	±90° / 36° ~ 73° / ±180°	±90° / 36° ~ 73° / ±180°	±90° / 36° ~ 73° / ±180°	-	-176°~+176° / 0°~30° / -90°~+90°	-176°~+176° / 0°~30° / -90°~+90°	-176°~+176° / 0°~30° / -90°~+90°	-176°~+176° / 0°~30° / -90°~+90°
IR Viewable Length	-	-	-	-	-	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	-	-	-	-
Wide Dynamic Range	120dB	120dB	120dB	120dB	150dB	-	-	-	-
Digital Noise Reduction	SSNRV	-	-	-	SSNRV	-	-	-	-
Digital Image Stabilization	Support	-	-	-	Support	-	-	-	-
Analytics	Intelligent analytics	-	-	-	Intelligent analytics	-	-	-	-
Business Intelligence	-	-	-	-	-	-	-	-	-
Alarm I/O	-	-	-	-	-	-	-	-	-
Audio I/O	-	-	-	-	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-	H.265, H.264, MJPEG	-	-	-	-
Resolution / Max. Frame Rate	5MP / 30fps	-	-	-	2MP / 60fps	-	-	-	-
WiseStream	WiseStream II	-	-	-	WiseStream II	-	-	-	-
Streaming	Up to 10 Profiles	-	-	-	Up to 10 Profiles	-	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-	Micro SD/SDHC/SDXC	-	-	-	-
Application Programming Interface	ONVIF Profile S/G, SUNAPI, Wisenet open platform	-	-	-	ONVIF Profile S/T SUNAPI(HTTP API)	-	-	-	-
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-	-	-	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	-	-	-	-
Certification	IP66, IK10	-	-	-	IP66, IK10	-	-	-	-
Power Consumption	PoE : 12.95W	-	-	-	PoE : 12.95W	-	-	-	-
Dimensions (WxHxD) / Weight	Ø197.6 x 84mm (Ø7.78" x 3.31") 1250g (2.76 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø197.6x84mm (7.78x3.31") 1250g(2.76lb)	Ø35.5x35.9mm 30g	Ø35.5x35.9mm 30g	Ø35.5x35.9mm 30g	Ø35.5x35.9mm 30g
Additional Features	Exchangeable 2ea x 5MP lens modules, Hallway view, Defog	-	-	-	Hallway view(90°/270°), Defog	-	-	-	-

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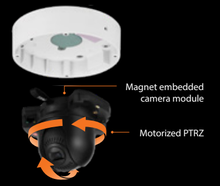
WISENET X PLUS

2MP/5MP Modular Camera

Faster installation x Reduced costs
Advanced performance x Multiplied values

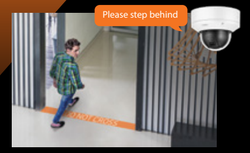
The X Plus cameras feature a modular design that makes installation and maintenance simpler than ever.

With extended tilt range, motorized PTRZ and optional skin covers, you will soon discover why X Plus is one of the most versatile camera lines on the market.



Modular structure
And motorized PTRZ

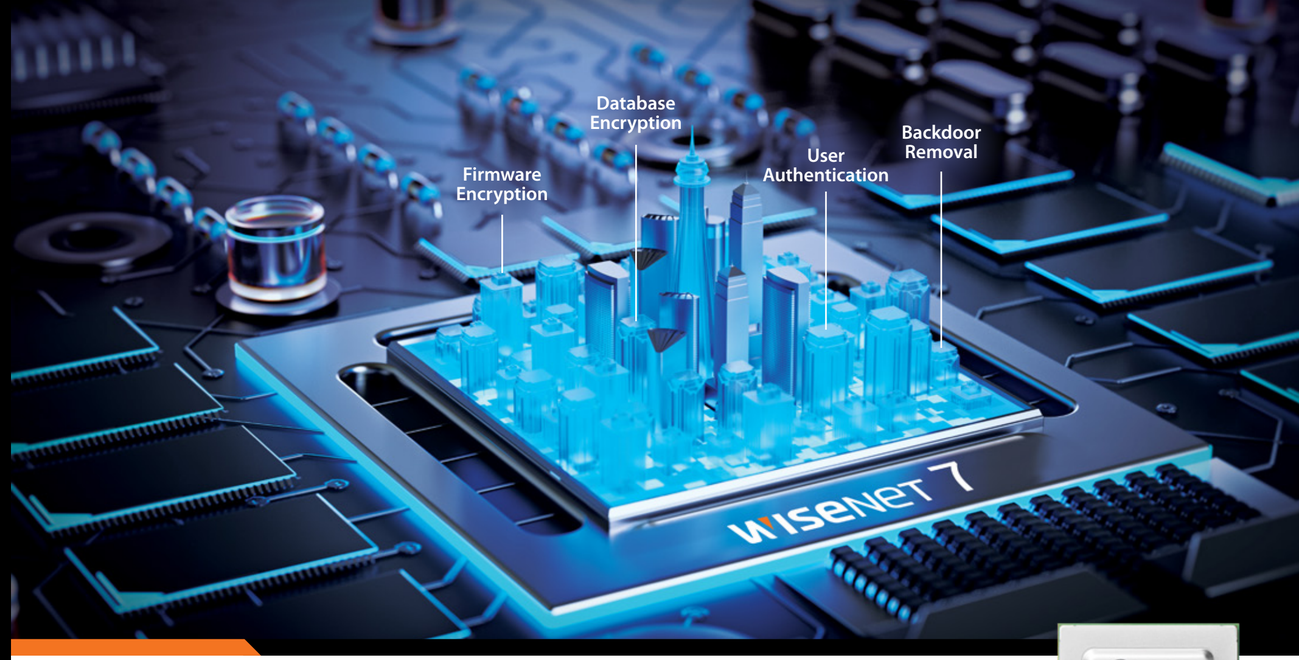
Extended tilt range for
greater flexibility



Audio playback on event

Weather Cap Black & Ivory Skin Cover

Optional accessories



WISENET 7

A New World of Cyber Security

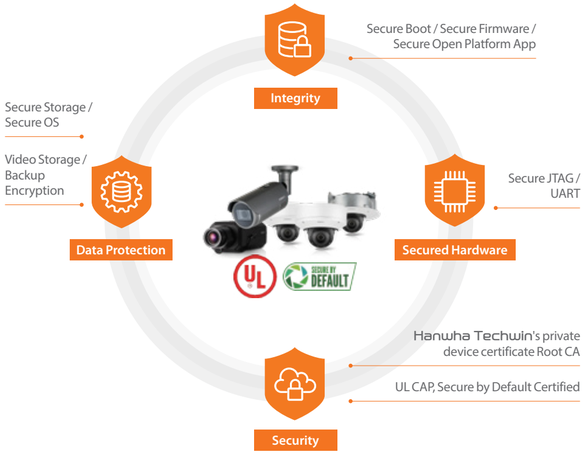
Exceptional cyber protection from the latest generation SoC

- Secure Boot Verification
- Secure OS
- Anti-Hardware Clone
- Secure JTAG
- Secure UART

WISENET 7

End-to-End Cybersecurity

Wisenet7 lineup offers next level Cybersecurity with the industry's highest levels of Cybersecurity policy which satisfies the stringent UL CAP standards and Secure by Default. Hanwha Techwin established its own device certificate issuing system, Root CA, to embed certificates into the product not only in the development progress but also in the manufacturing progress. Possessing the world's best in-house chip development and design technology, Hanwha Techwin maintains a differentiated and innovative policy.



Realistic image without image distortion

Wisenet7 lineup perfectly corrected wide-angle lens distortion to overcome the limitations of conventional cameras. It generates advanced images as seen by the human eye, without lens distortion, despite being equipped with a wide-angle lens.

Exceptional 4K Resolution

Wisenet7 camera devices provide clear and vivid images in resolutions of up to 4K suitable for forensic search applications.

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Sharper images with enhanced noise reduction technology

Wisenet7 lineup minimizes motion blur and artifacts in low-light environments. Hanwha Techwin's outstanding noise reduction technology significantly reduced video noise compared to conventional cameras. Maximized expression of edges and colors allows identification of object details even in low-light environments.

Vector-based OSD

Wisenet7's use of vector graphics for its on screen display delivers crisp text overlays, regardless of image resolution, and offers the ability to choose from an unlimited range of display colors and other options. It also allows the usage of custom logos and images to be overlayed on live or exported video.

extreme WDR's enhanced noise reduction technology

Wisenet7 lineup applied improved local contrast enhancement technology to provide a clearer and sharper image. Overcoming limitations that may occur from the existing multi-frame integration method, it optimizes contrast so that objects can be clearly identified even in the environments with strong backlight.

License-free Onboard Video and Audio Analytics

Wisenet7's onboard video and audio analytics suite is completely license-free and includes face and torso detection, intelligent motion analytics, and audio classification for gunshots, explosions, screams, and breaking glass. Analytics events can be used to trigger alarms as well as audio playback as a response.

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	WISENET 7	WISENET 7	WISENET 7	WISENET 7	WISENET 7
	XNB-9002 4K Network Box Camera	**XND-9082RV** 4K Network IR Dome Camera	**XND-9082RF** 4K Network IR Dome Camera	**XNV-9082R** 4K Network IR Vandal Dome Camera	**XNO-9082R** 4K Network IR Bullet Camera
Imaging Device	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS
Min. Illumination	Colour: 0.05Lux(F1.2, 1/30sec) B/W: 0.005Lux	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)
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	-	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: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	-	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)
Day & Night	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)
Wide Dynamic Range	extremeWDR	extreme WDR	extreme WDR	extreme WDR	extreme WDR
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in/Built-in mic)	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265/H.264: Main/High, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C
Certification	-	IP52, IK10	IP52, Plenum rate, IK10	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP66/IP67, IK10, NEMA4X
Power Consumption	PoE: typ 8.2W, Max 12.95W 12VDC: typ 7.5W, Max 11.5W 24VAC: typ 8.9W, Max 13.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W 24VAC : typ 11.0W, max13.5W	PoE : typ 10.5W, max 12.95W 12VDC : typ 9.4W, max 12.5W 24VAC : typ 11.2W, max14.5W
Dimensions (WxHxD) / Weight	Ø81 x 165 x 67mm (Ø3.19 x 6.48 x 2.64"), 0.88kg	Ø160 x125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	Ø205 x163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)
Additional Features	-	-	-	-	-

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	WISENET 7	WISENET 7	WISENET 7	WISENET 7	WISENET 7
	XNB-8002 6MP Network Box Camera	**XND-8082RV** 6MP Network IR Dome Camera	**XND-8082RF** 6MP Network IR Dome Camera	**XNV-8082R** 6MP Network IR Vandal Dome Camera	**XNO-8082R** 6MP Network IR Bullet Camera
Imaging Device	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS
Min. Illumination	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux	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)
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	-	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal
Angular Field of View	-	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	-	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)
Day & Night	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)
Wide Dynamic Range	extreme WDR	extreme WDR	extreme WDR	extreme WDR	extreme WDR
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in/Built-in mic)	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	6MP / 30fps	6MP / 30fps	6MP / 30fps	6MP / 30fps	6MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C
Certification	-	IP52, IK10	IP52, Plenum rate, IK10	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP66/IP67, IK10, NEMA4X
Power Consumption	PoE: typ 8.2W, Max 12.95W 12VDC: typ 7.5W, Max 11.5W 24VAC: typ 8.9W, Max 13.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W 24VAC : typ 11.0W, max13.5W	PoE : typ 10.5W, max 12.95W 12VDC : typ 9.4W, max 12.5W 24VAC : typ 11.2W, max14.5W
Dimensions (WxHxD) / Weight	Ø81 x 165 x 67mm (Ø3.19" x 6.48" x 2.64") 0.88kg (1.94lb)	Ø160 x125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	Ø205 x163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)
Additional Features	-	-	-	-	-

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WISENET PTZ PLUS

INTELLIGENCE MAGNIFIED

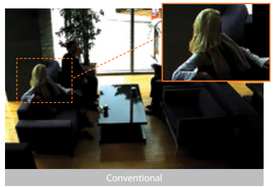
KEEP YOUR VISION ON THE MOVE WITH DEEP LEARNING AI AUTO TRACKING

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

WISENET X series

True WDR performance(150dB)

Conventional WDR captures images by taking 2 frames taken at different exposures, whereas Wisenet X series cameras utilize 4 frame capture at different exposure levels to create a combined image. With the development of cutting-edge WDR technology, Wisenet X series cameras address a limitation found in conventional WDR cameras while producing clear and vivid images.


Conventional

Wisenet X series

※150dB WDR only available in 2MP X series

extraLUX provides clear and coloured images, even in low-light environments

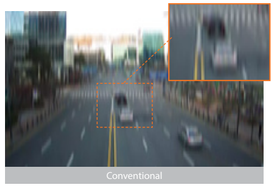
Wisenet X series achieves optimal performance in low-light conditions by producing crystal-clear and true-colour images without IR LEDs, regardless of the environment or time of day. The extraLUX series (XNO-6085R, XND/XNV-6085(V)) feature outstanding F0.94 lens with the 1/2" CMOS sensor, capturing vivid colour images even in low-light environments.

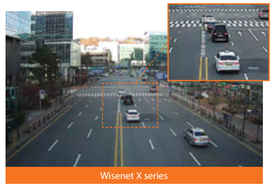
Conventional

extraLUX(XNV-6085)

Digital Image Stabilization(DIS) with built-in Gyro sensor

Advances in Wisenet image stabilization technology allows the reduction of motion blur caused by wind or vibration. A gyroscopic sensor plus DIS technology is specifically added to the Wisenet X series cameras for more accurate stabilization.


Conventional


Wisenet X series

Improve bandwidth by using WiseStream Ⅱ

Using WiseStream Ⅱ, Hanwha Techwin's original video compression technology, the Wisenet X series reduces data by up to 99% compared to current H.264 technology, when combined with H.265 compression. System costs are also greatly reduced without comprising image quality.

WiseStream Ⅱ OFF : 7160kbps **WiseStream Ⅱ ON : 74kbps**

WiseStream Ⅱ OFF : 7260kbps **WiseStream Ⅱ ON : 1817kbps**

WISENET

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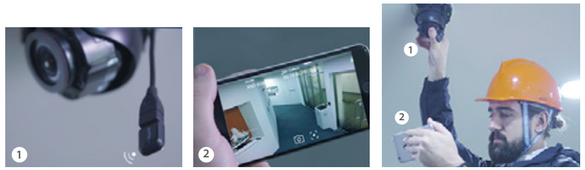
Simple installation with USB

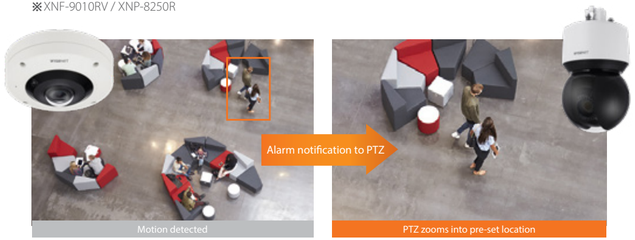
Using the USB port, the installer can easily connect Wisenet X series cameras and mobile devices through Wi-Fi. Viewing and adjusting camera angles can be done immediately after installation by using a smartphone. No additional devices are required, saving both time and money.



Handover to PTZ

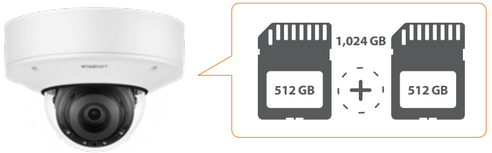
The handover feature allows a select camera to receive an alarm (motion detection) from a Wisenet X series camera operating on the same IP video surveillance system. Once the notification is received, the PTZ camera will zoom into the assigned camera pre-set location.

※XNF-9010RV / XNP-8250R



Dual SD slots

Keep data safe in the event of an unstable network by saving up to 1,024 GB automatically to the camera with Dual SD Slots.



Fog detection

Wisenet X series delivers outstanding image quality in foggy weather with Fog detection. Any change in an image is automatically detected with the defog function to provide a clear image.

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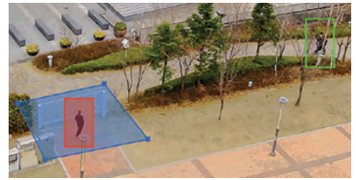
Enhanced Video / Audio Analytics

Wisenet X series support a variety of exclusive Video and Audio Analytics, providing enhanced monitoring solutions and market intelligence.

Loitering detection

This feature detects when an object remains in a designated area longer than the time threshold set by the user.

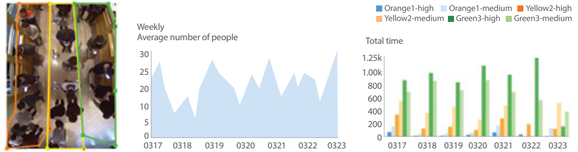


Sound classification

Wisenet X series cameras help users respond immediately in dangerous situations, by classifying sounds such as gunshot, glass breakage, scream and explosion.

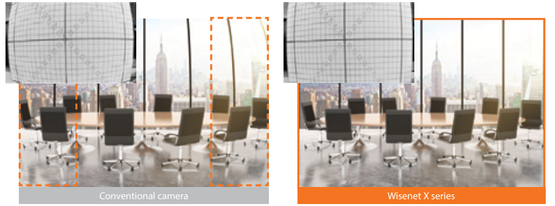
Queue management

This feature provides statistical analysis and measurement for average dwell time and number of people in a queue. This insight is critical for businesses to manage their operations more efficiently, while providing the insight necessary to manage campaigns, displays and promotions throughout retail locations.



Minimise Lens Distortion

Lens Distortion may typically appear in videos causing straight lines close to the edge to curve outwards. With the Lens Distortion Correction technology available on the Wisenet X series, imperfections in images can easily be repaired.



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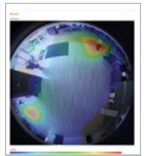
People counting and Heat map

The Wisenet X PLUS cameras have a business intelligence function that offers retailers the opportunity to measure store efficiency. People counting and heat map applications display hotspots within a store, which allow marketing personnel to identify the busiest times of the day, helping them manage customer flow and understand buying patterns.

People counting



Heatmap

Extended tilt range for greater flexibility

Extended tilt angle has been added for greater flexibility in placement and use cases of Wisenet X PLUS cameras.

Optional accessories for various applications

A weather cap and skin cover, available in black and ivory, allow the cameras to blend in with their surroundings.

Weather cap

Ivory & Black skin cover

- Weather cap (XNV only) and ivory skin cover (XNV and XND) are included in the product package.
  The weather cap can not be applied with the skin cover on.

SBC-180B

Skin cover
Compatible with
XNV-6081Z/8081Z

SBC-160B

Skin cover
Compatible with
XND-6081Z/8081Z

SPC-100AC

AC24V power module
Compatible with
XNV-6081Z/8081Z

SBP-187HMW

Hanging mount
Compatible with
XNV-6081Z/8081Z

SBP-167HMW

Hanging mount
Compatible with
XND-6081Z/8081Z

SBP-300WMW1

Wall mount
Compatible with
SBP-180HMW/160HMW

SBP-300KMW

Corner mount
Compatible with SBP-300WMW1

SBP-300PMW

Pole mount
Compatible with SBP-300WMW1

SBP-300CMW

Celling mount
Compatible with
SBP-180HMW/160HMW

	XNB-8000 5MP Box Camera	**XNO-8080R** 5MP IR Bullet Camera	**XNO-8020R/8030R/8040R** 5MP IR Bullet Camera	X PLUS **XND-8081VZ** 5MP Dome Camera	X PLUS **XND-8081FZ** 5MP Flush Mount Dome Camera	X PLUS **XND-8081REV** 5MP IR Dome Camera
Imaging Device	1/1.8" 6MP CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/1.8" 6MP CMOS	1/1.8" 6MP CMOS	1/1.8" 6MP CMOS
Min. Illumination	Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	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 (F1.2, 1/30sec) B/W : 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	Micro USB Type B	Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B
Focal Length	-	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.7mm fixed (XNO-8020R) 4.6mm fixed (XNO-8030R) 7.0mm fixed (XNO-8040R)	3.6 ~ 9.4mm (2.6x) motorized varifocal	3.6 ~ 9.4mm (2.6x) motorized varifocal	3.9~9.4mm (2.4x) motorized varifocal
Angular Field of View	-	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / T : 119.9° (Wide) ~ 48.6° (Tele)	H : 97.5° / V : 71.9° / D : 126.2° (XNO-8020R) H : 77.9° / V : 57.9° / D : 98.7° (XNO-8030R) H : 50.7° / V :37.8° / D : 63.8° (XNO-8040R)	H : 102.5° (Wide) ~ 38.7° (Tele) / V : 74.2° (Wide) ~ 29.0° (Tele) / D : 135.5° (Wide) ~ 48.6° (Tele)	H : 102.5° (Wide) ~ 38.7° (Tele) / V : 74.2° (Wide) ~ 29.0° (Tele) / D : 135.5° (Wide) ~ 48.6° (Tele)	H: 92.1°(Wide)~38.7°(Tele) / V: 67.2°(Wide)~29.0°(Tele) / D: 119.9°(Wide)~48.6°(Tele)
Pan / Tilt / Rotate	-	-	-	±175° / 0 ~ 85° / ±175° (Remote)	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	-	50m (164.04ft)	30m (98.43ft)	-	-	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Support	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Off / On (Built-in Gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection
Business Intelligence	-	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	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	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)
Certification	-	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10	IP52, IK10	IP52, Plenum rate	IP52, IK10
Power Consumption	PoE : Max 8.50W 12VDC : Max 7.50W 24VAC : Max 8.50W	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W	PoE : Max 10.3W 12VDC : Max 9.3W	PoE : Max 11W 12VDC : Max 9W	PoE : Max 11W 12VDC : Max 9W	PoE+: Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM)
Dimensions (WxHxD) / Weight	Ø73.1 x 66.6 x 147.8mm (Ø2.88" x 2.62" x 5.82") 420g (0.93lb)	Ø91.0 x 368.6mm (Ø6.3" x 4.67") 2.18Kg (4.81lb)	Ø70.0 x 296mm (Ø2.76" x 11.65") 1.22kg (2.69lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.20lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.85kg (4.08 lb)	Ø160 x 125mm (6.30" x 4.92") 1.45 kg (3.20 lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, PoE out: Max 12.95W at 80meters using CAT5/5E cable

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	X PLUS **XND-8081RV** 5MP IR Dome Camera	X PLUS **XND-8081RF** 5MP IR Flush Mount Dome Camera	 **XND-8080R/8080RV** 5MP IR Dome Camera	 **XND-8020R/8030R/8040R** 5MP IR Dome Camera	 **XND-8020F** 5MP Flush Mount Dome Camera
Imaging Device	1/1.8" 6MP CMOS	1/1.8" 6MP CMOS	1/1.8" 5MP CMOS	1/1.8" 6MP CMOS	1/1.8" 6MP CMOS
Min. Illumination	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 0.07Lux (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)
Video Output	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B
Focal Length	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.9 ~ 9.4m (2.4x) motorized varifocal	3.7mm fixed (XND-8020R) 4.6mm fixed (XND-8030R) 7.0mm fixed (XND-8040R)	3.7mm fixed
Angular Field of View	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 97.5° / V : 71.9° / D : 126.2° (XND-8020R) H : 77.9° / V : 57.9° / D : 98.7° (XND-8030R) H : 50.7° / V : 37.8° / D : 63.8° (XND-8040R)	H : 97.5° / V : 71.9° / D : 126.2°
Pan / Tilt / Rotate	0°~ 360° / -45°~ 85° / 0°~ 355°	0°~ 360° / -45°~ 85° / 0°~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0°~355°/ 0°~47°/ 0°~353°
IR Viewable Length	50m (164.04ft)	50m (164.04ft)	30m (98.43ft)	30m (98.43ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB	-
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)	Support
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	-
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Built-in mic / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP52, IK10	IP52, Plenum rate	IK08	IK08	-
Power Consumption	PoE : Max 12.95W 12VDC : Max 11.7W	PoE : Max 12.95W 12VDC : Max 11.7W	PoE : Max 10W 12VDC : Max 9W	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W
Dimensions (WxHxD) / Weight	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.20 lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97 lb)	Ø140.8 x 113.0mm (Ø5.54"x 4.45") 628g (1.38lb) (XND-8080R) 732g (1.61lb) (XND-8080RV)	Ø110.0 x 90.0mm (Ø4.33" x 3.54") 380g (0.84lb)	Ø98.9 x 129.1mm (Ø3.89" x 5.08") 275g (0.61lb)
Additional Features	Modular structure, Anti dust	Modular structure, Anti dust	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

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	X PLUS **XNV-8081Z** 5MP Vandal Dome Camera	X PLUS **XNV-8081RE** 5MP Vandal Dome Camera	X PLUS **XNV-8081R** 5MP IR Vandal Dome Camera	 **XNV-8080R** 5MP IR Vandal Dome Camera	 **XNV-8080RSA** 5MP Network Stainless IR Dome Camera
Imaging Device	1/1.8" 6MP CMOS	1/1.8" 6MP CMOS	1/1.8" 6MP CMOS	1/1.8" 5MP CMOS	1/1.8"CMOS
Min. Illumination	Colour : 0.07 Lux (F1.2) B/W : 0.007 Lux (F1.2)	Colour: 0.07Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED on)	Colour: 0.07Lux (F1.3) BW: 0Lux (IR LED)	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour: 0.07Lux(F1.3, 1/30sec) BW: 0Lux(IR LED on)
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	CVBS 1.0 Vp-p, Micro USB type B
Focal Length	3.6~9.4mm(2.6x) motorized varifocal	3.9~9.4mm(2.4x) motorized varifocal	3.9~9.4mm (2.4x) motorized varifocal	3.9~9.4mm (2.4x) motorized varifocal	3.9~9.4mm(2.4x) motorized varifocal
Angular Field of View	H : 102.5° (Wide) ~ 38.7° (Tele) / V : 74.2° (Wide) ~ 29.0° (Tele) / D : 135.5° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H: 92.1°(Wide) ~ 38.7°(Tele) / V: 67.2°(Wide) ~ 29.0°(Tele) / D: 119.9°(Wide) ~ 48.6°(Tele)
Pan / Tilt / Rotate	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0°~ 360° / -45°~ 85° / 0°~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0°~354° 0°~67° / 0°~355°
IR Viewable Length	-	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	50m(164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto(ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Off / On (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, Audio Playback Shock detection	Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 /1
Audio I/O	Selectable (mic in/line in) / Line out	Line-in (external mic) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up should be done at above -35°C((-35°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) Less than 90% RH
Certification	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP66, IP67, IP6K9K, IK10+, NEMA 4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, NEMA4X, IK10	IP66, IP6K9K, IK10+, NEMA4X
Power Consumption	PoE : Max 12.3W 12VDC : Max 10W 24VAC : Max 12.3W	PoE+: Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM)	PoE : Max 12.95W 12VDC : Max 11.7W 24VAC : Max 14.9W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE: Max 12.95W 12VDC: Max 11.5W 24VAc: Max 14W
Dimensions (WxHxD) / Weight	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (7.09" x 4.92") 1.75 kg (3.86 lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø160.0 x 118.5mm (Ø6.3" x 4.67") 1.01Kg (2.23lb)	Ø162x120.5mm (Ø6.38x4.74") 2.8kg(6.17lb)
Additional Features	Modular structure, Motorized PTRZ	Modular structure, PoE out: Max 12.95W at 80meters using CAT5/5E cable	Modular structure	Handover, Hallway View	Stainless steel (SUS316L)

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	XNV-8020R/8030R/8040R 5MP IR Vandal Dome Camera	**XNF-9010RV/9010RVM** 12MP IR Fisheye Camera	**XNF-8010R/8010RV/8010RVM** 6MP IR Fisheye Camera	**XNZ-6320** 2MP 32x Zoom Camera	**XNZ-L6320** 2M H.265 NW 32x Zoom Camera
Imaging Device	1/1.8" 6MP CMOS	1/2.3" 12MP CMOS	1/1.8" 6MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour: 0.39 Lux (F2.2, 1/30sec) B/W : 0Lux(IR LED on)	Colour : 0.1Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)	Colour: 0.05 lux(F1.6, 1/30sec) B/W: 0.005 lux(F1.6, 1/30sec)
Video Output	CVBS 1.0 Vp-p, Micro USB type B	CVBS 1.0 Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0 Vp-p, Micro USB type B	CVBS: 1.0 Vp-p
Focal Length	3.7mm fixed (XNV-8020R) 4.6mm fixed (XNV-8030R) 7.0mm fixed (XNV-8040R)	1.08mm fixed focal	1.6mm fixed	4.44 ~ 142.6mm (32x Optical zoom / 32x Digital zoom)	4.44~142.6mm(32x) motorized varifocal
Angular Field of View	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°	H : 192° / V : 192° / D : 192°	H : 61.8° (Wide) ~ 2.19° (Tele) / V : 36.2° (Wide) ~ 1.24° (Tele)	H: 61.8°(Wide)~2.19°(Tele) / V: 36.2°(Wide)~1.24°(Tele)
Pan / Tilt / Rotate	0°~ 354° / 0°~ 67° / 0°~ 355°	-	-	-	-
IR Viewable Length	30m (98.43ft)	10m(32.8ft), Wise IR	15m (49.21ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	extremeWDR (120dB)	120dB	150dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	-	Support (Built-in Gyro sensor)	Support
Analytics	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification, Shock detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Digital auto tracking, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, 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	2 configured I/O	1 / 1	1 / 2	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) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	-	2048 x 2048 / 30fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, 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, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F)	-40°C ~ +60°C (-40°F ~ +140°F) Less than 95% RH	-10°C ~ +55°C (+14°F ~ +131°F) (XNF-8010R) -40°C ~ +55°C (-40°F ~ +131°F) (XNF-8010RV/8010RVM)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66, IP67, IK10	IP66, IK10, NEMA4X	IP66, IK10 (XNF-8010RV/8010RVM)	-	-
Power Consumption	PoE : Max 9.00W 12VDC: Max 8.00W	PoE: Max 12.95W 12VDC: Max 11W	PoE : Max 12W,12VDC : Max 11W (XNF-8010R) PoE : Max 12.95W, 12VDC : Max 12W (XNF-8010RV/8010RVM)	PoE : Max 7W 12VDC : Max 6.7W	PoE : Max 6.8W, Typical 4.8W 12VDC : Max 5.2W, Typical 3.5W
Dimensions (WxHxD) / Weight	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 615g (1.36lb)	Ø160x72mm (62.99x28.35") 1100g(2.43lb)	Ø146 x 54.8mm (Ø5.75" x 2.16"), 730g (1.61 lb) (XNF-8010R) Ø146 x 65.8mm (Ø5.75" x 2.59") 785g (1.73 lb) (XNF-8010RV) 790g (1.74 lb) (XNF-8010RVM)	96 x 76 x 143.5mm (3.78" x 2.99" x 5.65") 578g (1.274 lb)	72x63.9x135.4mm (2.83x2.52x5.33") 480g(1.06 lb)
Additional Features	Handover, Hallway View	-	M12 Connector (XNF-8010RVM), Built-in MIC, On board dewarpping	Defog, SFP Slot	Defog, Handover

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	XNB-6005 2MP Box Camera (extraLUX)	**XNB-6000** 2MP Box Camera	**XNB-6001** 2MP Remote Head Camera	**SLA-T4680** 2MP lens for XNB-6001	**SLA-T4680V** 2MP lens for XNB-6001
Imaging Device	1/2" 2.17MP CMOS	1/2.8" 2MP CMOS	-	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.006Lux (F1.2) B/W : 0.0006Lux (F1.2)	Colour : 0.01Lux (F1.2) B/W : 0.001Lux (F1.2)	-	Colour : 0.06Lux (F2.5) B/W: 0.06Lux (F2.5)	Colour : 0.06Lux (F2.5) B/W: 0.06Lux (F2.5)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	-	-
Focal Length	-	-	-	4.6mm Pinhole	4.6mm Pinhole
Angular Field of View	-	-	-	H : 73° / V : 39° / D : 85°	H : 73° / V : 39° / D : 85°
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	-	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	120dB	-	-
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	-	-
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	-	-
Analytics	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics Audio detection	-	-
Business Intelligence	-	-	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	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	-	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	-	-
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	-	-
WiseStream	WiseStream II	WiseStream II	WiseStream II	-	-
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	-	-
Edge Storage	SD/SDHC/SDXC	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, SUNAPI, Wisenet open platform	-	-
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	-	-	-	-	-
Power Consumption	PoE : Max. 8.5W 12VDC : Max 8W 24VAC : Max 9W	PoE : Max 7.5W 12VDC : Max 6.5W 24VAC : Max 8W	PoE : Max 6W 12VDC : Max 6.5W	-	-
Dimensions (WxHxD) / Weight	73.1 x 66.6 x 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93 lb)	73.1 x 66.6 x 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93 lb)	131.1 x 28 x 86mm (5.16" x 1.10" x 3.39") 245g (0.54 lb)	Ø24 x 42mm (Ø0.94" x 1.65") (Lens) 8m (314.96") (Cable) 310g (0.68 lb)	30 x 20.2 x 45mm (1.18" x 0.80" x 1.77") (Lens) 8m (314.96") (Cable) 321g (0.71 lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	-	-

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	SLA-T2480 2MP lens for XNB-6001	**SLA-T2480V** 2MP lens for XNB-6001	**SLA-T1080F** 2MP lens for XNB-6001	**XNO-6120R** 2MP IR Bullet Camera	**XNO-6085R** 2MP IR Bullet Camera (extraLUX)	**XNO-6080R** 2MP IR Bullet Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2" 2.17MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.45Lux (F2.0) B/W : 0.45Lux (F2.0)	Colour : 0.45Lux (F2.0) B/W : 0.45Lux (F2.0)	Colour : 0.03Lux (F1.6)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.004Lux (F0.94) B/W : 0Lux (IR LED on)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)
Video Output	-	-	-	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.4mm fixed	2.4mm fixed	1.6mm fisheye No Dewarping	5.2 ~ 62.4mm (Optical 12x)	4.1 ~ 16.4mm (Optical 4x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 138° / V : 73° / D : 168°	H : 138° / V : 73° / D : 168°	H : 187° / V : 113.9°	H : 54.58° (Wide) ~ 5.30° (Tele) / V : 32.19° (Wide) ~ 3.00° (Tele) / D : 61.40° (Wide) ~ 6.06° (Tele)	H : 100° (Wide) ~ 26.2° (Tele) / V : 54° (Wide) ~ 14.8° (Tele) / D : 116° (Wide) ~ 30.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	-	-	-	-	-	-
IR Viewable Length	-	-	-	70m (229.66ft)	70m (229.66ft)	50m (164.04ft)
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	-	-	-	150dB	150dB	150dB
Digital Noise Reduction	-	-	-	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	-	-	-	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support
Analytics	-	-	-	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification
Business Intelligence	-	-	-	-	-	-
Alarm I/O	-	-	-	1 / 1	1 / 1	1 / 1
Audio I/O	-	-	-	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	-	-	-	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	-	-	-	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	-	-	-	WiseStream II	WiseStream II	WiseStream II
Streaming	-	-	-	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	-	-	-	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	-	-	-	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)*	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)
Certification	-	-	-	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, 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
Dimensions (WxHxD) / Weight	Ø24 x 49.8mm (Ø0.94" x 1.96") (Lens) 8m (314.96") (Cable) 318g (0.70 lb)	30 x 27.9 x 45mm (1.18" x 0.10" x 1.77") (Lens) 8m (314.96") (Cable) 328g (0.72 lb)	Ø35 x 68.9mm (Ø1.38" x 2.71") (Lens) 8m (314.96") (Cable) 321g (0.71 lb)	Ø91.0 x 368.6mm (Ø3.58" x 14.51") 2.18Kg (4.81 lb)	Ø91.0 x 388.6mm (Ø3.58" x 15.30") 2.35Kg (5.18 lb)	Ø91.0 x 368.6 mm (Ø3.58" x 14.51") 2.18Kg (4.81lb)
Additional Features	-	-	-	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

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				X PLUS 	X PLUS
	XNO-L6080R 2MP IR Bullet Camera	**XNO-6010R/6020R** 2MP IR Bullet Camera	**XND-6085/6085V** 2MP Dome Camera (extraLUX)	**XND-6081V** 2MP Dome Camera	**XND-6081F** 2MP Flush Mount Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2" 2.17MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.1Lux (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)	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 : 0.0015Lux (F1.4)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	2.4mm fixed (XNO-6010R) 4mm fixed (XNO-6020R)	4.1~16.4mm (Optical 4x)	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 109.0° (Wide) ~ 33.2°(Tele) / V : 57.4° (Wide) ~ 18.7°(Tele) / D : 132.0° (Wide) ~ 38.0°(Tele)	H : 139.0° / V : 73.0° / D : 167.0° (XNO-6010R) H : 88.6° / V : 47.5° / D : 104.8° (XNO-6020R)	H : 100° (Wide) ~ 26.2° (Tele) / V : 54° (Wide) ~14.8° (Tele) / D : 116° (Wide) ~ 30.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	-	-	±175° / ±73° / ±175°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	30m (98.42ft)	20m (65.62ft) (XNO-6010R) 30m (98.43ft) (XNO-6020R)	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	150dB	-	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	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	Intelligent analytics, Audio detection, Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback, Shock detection
Business Intelligence	-	People counting, Queue management, Heatmap	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	-	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	-	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, 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	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)
Certification	IP66, IK10	IP67, IP66, NEMA 4X, IK10	IK08	IP52, IK10	IP52, Plenum rate
Power Consumption	PoE : Max. 11W	PoE : Max 9.7W 12VDC : Max 8.8W	PoE : Max 10.2W 12VDC : Max 8.6W	PoE : Max 7.0W 12VDC : Max 5.40W	PoE : Max 7.0W 12VDC : Max 5.40W
Dimensions (WxHxD) / Weight	Ø91 x 322.9mm (Ø3.58" x 12.71") 1.29Kg (4.25 lb)	Ø70 x 301.5mm (Ø2.76" x 11.87") (XNO-6010R) Ø70 x 296mm (Ø2.76" x 11.65") (XNO-6020R) 1.22Kg (2.69 lb)	Ø160.0 x 140.0mm (Ø6.30" x 5.51") 1.10 kg (2.43 lb) (XND-6085) 1.25 kg (2.76 lb) (XND-6085V)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Modular structure, Anti dust	Modular structure, Anti dust

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	X PLUS	X PLUS	X PLUS	X PLUS	X PLUS
	XND-6081VZ 2MP Dome Camera	**XND-6081FZ** 2MP Flush Mount Dome Camera	**XND-6081REV** 2MP IR Dome Camera	**XND-6081RV** 2MP IR Dome Camera	**XND-6081RF** 2MP Flush Mount IR Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4, 1/30sec) B/W : 0 Lux (IR LED on)	Colour : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)
Video Output	Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8~12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (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°	0°~ 360° / -45°~ 85° / 0°~ 355°
IR Viewable Length	-	-	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Off / On (built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)
Certification	IP52, IK10	IP52, Plenum rate	IP52, IK10	IP52, IK10	IP52, Plenum rate
Power Consumption	PoE : Max 10W 12VDC : Max 8.5W	PoE : Max 10W 12VDC : Max 8.5W	PoE+: Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM)	PoE : Max 12.95W 12VDC : Max 10.8W	PoE : Max 12.95W 12VDC : Max 10.8W
Dimensions (WxHxD) / Weight	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.85kg (4.08lb)	Ø160 x 125mm (6.30" x 4.92") 1.45 kg (3.20 lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97lb)
Additional Features	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, PoE out: Max 12.95W at 80 meters using CAT5/5E cable	Modular design, Anti dust	Modular design, Anti dust

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	XND-6080/6080V 2MP Dome Camera	**XND-6080R/6080RV** 2MP IR Dome Camera	**XND-L6080R** 2MP IR Dome Camera	**XND-6020R** 2MP IR Dome Camera	**XND-6011F** 2MP Flush Mount Dome Camera	**XND-6010** 2MP Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.1Lux (F1.6) B/W : 0Lux (IR LED on)	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)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.8 ~12mm (4.3x) motorized varifocal	2.8 ~12mm (4.3x) motorized varifocal	3.2 ~10mm (3.1x) motorized varifocal	4mm fixed	2.8mm fixed	2.4mm fixed
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)	H : 88.6° / V : 47.5° / D : 104.8°	H : 112° / V : 62° / D : 130°	H : 139.0° / V : 73.0° / D : 167.0°
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 355° / 0° ~ 47° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	30m (98.43ft)	30m (98.42ft)	30m (98.43ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	120dB	150dB	-	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support	Support	Support	Support
Analytics	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification
Business Intelligence	-	-	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	-	1 / 1	-	1 / 1
Audio I/O	Selectable (mic in/line in), 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	Built-in mic / -	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IK08	IK08	IK08	IK08	-	IK08
Power Consumption	PoE : Max 6.5W 12VDC : Max 6W	PoE : Max 10W 12VDC : Max 9W	PoE : Max 8W	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W	PoE : Max 6.5W 12VDC : Max 6W
Dimensions (WxHxD) / Weight	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 610g (1.34lb) (XND-6080) 714g (1.57lb) (XND-6080V)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 624g (1.38lb) (XND-6080R) 724g (1.60lb) (XND-6080RV)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 580g (1.28 lb) (XND-L6080R) 690g (1.52 lb) (XND-L6080RV)	Ø110.0 x 90.0mm (Ø4.33" x 3.54") 380g (0.84 lb)	Ø98.9 x 129mm (Ø3.89" x 5.08") 275g (0.61 lb)"	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 610g (1.34 lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Defog, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

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	XNV-6120 2MP Vandal Dome Camera	XNV-6120R 2MP IR Vandal Dome Camera	XNV-6120RS 2MP Stainless IR Vandal Dome Camera	XNV-6085 2MP Vandal Dome Camera (extraLUX)	XNV-6081Z X PLUS 2MP Vandal Dome Camera	XNV-6081RE X PLUS 2MP IR Vandal Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2" 2.17MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.03Lux (F1.6), B/W : 0.003Lux (F1.6)	Colour : 0.03Lux (F1.6), B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94)	Colour : 0.015 lux (F1.4) B/W : 0.0015 Lux (F1.4)	Colour : 0.015Lux (F1.4, 1/30sec) B/W : 0 Lux (IR LED on)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	5.2 ~ 62.4mm (Optical 12x)	5.2 ~ 62.4mm (Optical 12x)	5.2 ~ 62.4mm (Optical 12x)	4.1 ~ 16.4mm (Optical 4x)	2.8 ~ 12mm (4.3x) motorized varifocal	2.8~12mm(4.3x) motorized varifocal
Angular Field of View	H : 54.58° (Wide) ~ 5.30° (Tele) / V : 32.19° (Wide) ~ 3.00° (Tele) / D : 61.40° (Wide)~ 6.06° (Tele)	H : 54.58° (Wide) ~ 5.30° (Tele) / V : 32.19° (Wide) ~ 3.00° (Tele) / D : 61.40° (Wide)~ 6.06° (Tele)	H : 54.6° (Wide) ~ 5.30° (Tele) / V : 32.2° (Wide) ~ 3.00° (Tele) / D : 61.40° (Wide) ~ 6.06° (Tele)	H : 100° (Wide) ~ 26.2° (Tele) / V : 54° (Wide) ~ 14.8° (Tele) / D : 116° (Wide) ~ 30.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	0° ~ 354° / 0°~ 75° / 0°~ 355°	0° ~ 354° / 0°~ 75° / 0°~ 355°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°	±175° / ±73° / ±175°	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	-	70m (229.66ft)	70m (229.66ft)	-	-	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification, Audio Playback, Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection
Business Intelligence	-	-	-	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) *Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up should be done at above -35°C (-35°F)
Certification	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10+	IP67, IP66, NEMA 4X, IK10	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X
Power Consumption	PoE : Max. 7.8W, 12V DC : Max 7W, 24V AC : Max. 8.2W	PoE : Max. 12.95W, 12V DC : Max. 11.5W, 24V AC : Max. 14W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 12.1W 12VDC : Max 11.1W 24VAC : Max 13.5W	PoE : Max 11W 12VDC : Max 9.5W 24VAC : Max 11W	PoE+: Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM)
Dimensions (WxHxD) / Weight	Ø160.0 x 128.5mm (Ø6.30" x 5.06") 985g (2.17 lb)	Ø160.0 x 128.5mm (Ø6.30" x 5.06") 995g (2.19 lb)	Ø162 x 134.5mm (Ø6.38" x 5.3") 2.7Kg (5.95 lb)	Ø160.0 x 140.0mm (Ø6.30" x 5.51") 1.40kg (3.09 lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (7.09" x 4.92") 1.75 kg (3.86 lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View SUS316L	Handover, Hallway View, Digital Pan, Tilt and Zoom (DPTZ)	Modular structure, Motorized PTRZ	Modular structure, PoE out: Max 12.95W at 80meters using CAT5/5E cable

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	XNV-6081R X PLUS 2MP IR Vandal Dome Camera	XNV-6081 X PLUS 2MP Vandal Dome Camera	XNV-6080 2MP Vandal Dome Camera	XNV-6080R 2MP IR Vandal Dome Camera	XNV-6080RSA 2M Stainless IR Dome Camera	XNV-L6080 2MP Vandal Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8"CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.015Lux (F1.4) BW : 0Lux (IR LED)	Colour : 0.015 Lux (F1.4) B/W : 0.0015 Lux (F1.4)	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, 1/30sec) BW: 0Lux(IR LED on)	Colour : 0.1Lux (F1.6) B/W : 0.01Lux (F1.6)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS: 1.0 Vp-p, Micro USB Type B,	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.8 ~12mm (4.3x) motorized varifocal	2.8 ~12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8°(Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H: 119.5°(Wide)~27.9°(Tele) / V: 62.8°(Wide)~15.7°(Tele) / D: 142.1°(Wide)~32.0°(Tele)	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0°~354° / 0°~67° / 0°~355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	50m (164.04ft)	-	-	50m (164.04ft)	50m(164.04ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support	Support	Support
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics	Intelligent analytics
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	-
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 2slot 512GB	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	-40°C ~ +55°C (-40°F ~ +131°F)
Certification	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10	IP66, IP6K9K, NEMA4X, IK10+	IP66, IK10
Power Consumption	PoE : Max 12.95W 12VDC : Max 10.8W 24VAC : Max 13.3W	PoE : Max 7.0W 12VDC : Max 5.4W 24VAC : Max 7.1W	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	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.45kg (3.20lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 985g (2.17 lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 995g (2.19 lb)	Ø162x120.5mm (Ø6.38x4.74") 2.8kg(6.17lb)	Ø160.0 x 118.5mm (Ø6.3" x 4.67") 940g (2.1 lb)
Additional Features	Modular structure	Modular structure	Handover, Hallway View	Handover, Hallway View		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	**XNV-6011** 2MP Vandal Dome Camera
Imaging Device	1/2 .8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2 .8" 2MP CMOS
Min. Illumination	Colour : 0.1Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.04Lux (F2.0) B/W : 0Lux (IR LED on)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)	Colour : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	CVBS 1.0Vp-p, Micro USB type B	Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB Type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	3.6mm fixed	4mm fixed	2.8mm fixed	2.4mm fixed	2.8mm fixed
Angular Field of View	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)	H : 94.8° / V : 49.3° / D : 114.3°	H : 88.6° / V : 47.5° / D : 104.8°	H : 107.4° / V : 62.2° / D : 122°	H : 135.4° / V : 71.2° / D : 161.6°	H : 112° / V : 62° / D : 130°
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°	0° ~ 353° / 0°~ 59° / 0°~ 353°
IR Viewable Length	30m (98.43ft)	15m (49.21ft)	30m (98.43ft)	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support
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)	Intelligent analytics
Business Intelligence	-	-	People counting, Queue management, Heatmap	-	-	People counting, Queue management, Heatmap
Alarm I/O	-	-	1 / 1	-	-	-
Audio I/O	-	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/ SDHC/SDXC	Micro 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, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	IP66, IK10	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP67, IP6K9K, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE : Max 11W	PoE : Max 6.70W	PoE : Max 9W 12V DC : Max 8W	PoE : Max 7.20W	PoE : Max 6.50W	PoE : Max 6.50W
Dimensions (WxHxD) / Weight	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 940g (2.07 lb)	98.9 x 52.0 x 100.0mm (3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 615g (1.36 lb)	103.7 x 72.3 x 126.8mm (4.08" x 2.85" x 4.99") 478g (1.04 lb)	98.9 x 52.0 x 100.0mm (3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø112.8 x 63.7mm (Ø4.44" x 2.51") 420g (0.93 lb)
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	Handover, Hallway View

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		X | PTZ PLUS NEW	X | PTZ PLUS NEW	X | PTZ PLUS NEW	X | PTZ PLUS NEW	X | PTZ PLUS NEW
	XNV-6010 2MP Vandal Dome Camera	**XNP-9300RW** 4K Network 30x IR PTZ - built-in wiper	**XNP-9250R** 4K Network 25x IR PTZ Camera	**XNP-9250** 4K Network 25x PTZ Camera	**XNP-8300RW** 6MP Network 30x IR PTZ - built-in wiper	**XNP-8250R** 6MP Network 25x IR PTZ Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour : 0.055Lux (F2.0) B/W : 0.0055Lux (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: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)
Video Output	CVBS 1.0Vpp, Micro USB type B	-	-	-	-	-
Focal Length	2.4mm fixed	5~150mm(30x) zoom (digital 32x zoom)	5~125mm(25x) zoom (digital 32x zoom)	5~125mm(25x) zoom (digital 32x zoom)	5~150mm(30x) zoom (digital 32x zoom)	5~125mm(25x) zoom (digital 32x zoom)
Angular Field of View	H : 139.0° / V : 73.0° / D : 167.0°	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)	H: 57.42°(Wide)~2.71°(Tele) / V: 33.54°(Wide)~1.55°(Tele)
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	360° Endless / 110°(-20°~90°)	360° Endless / 10°(-20°~90°)	360° Endless / 110°(-20°~90°)	360° Endless / 110°(-20°~90°)	360° Endless / 110°(-20°~90°)
IR Viewable Length	-	200m(656.17ft), Wise IR	200m(656.17ft), Wise IR	-	200m(656.17ft), Wise IR	200m(656.17ft), Wise IR
Day & Night	Auto (ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)
Wide Dynamic Range	150dB	Extreme WDR (120dB)	Extreme WDR(120dB)	Extreme WDR(120dB)	Extreme WDR (120dB)	Extreme WDR(120dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	People counting, Queue management, Heatmap	-	-	-	-	-
Alarm I/O	1 / 1	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)
Audio I/O	Selectable (mic in/line in) / Line out	1/1 (available with SPM-4210)	1/1 (available with SPM-4210)	1/1 (available with SPM-4210)	1/1 (available with SPM-4210)	1/1 (available with SPM-4210)
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	-	4MP / 30fps	4MP / 30fps	-	6MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	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/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	Normal : -40°C~+55° (-40°F ~ +131°F) Less than 95% RH(Non-condensing)	-40°C~+60°C(-40°F ~ +140°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165°F)	-40°C~+60°C(-40°F ~ +140°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165°F)	Normal : -40°C~+55° (-40°F ~ +131°F) Less than 95% RH(Non-condensing)	-40°C~+60°C(-40°F ~ +140°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165°F)
Certification	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)	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 6W 12V DC : Max 5.5W	HPoE(Camera only): Max 42W	Typical 20W, Max 40W	Typical 20W, Max 25W	HPoE(Camera only): Max 42W	Typical 20W, Max 40W
Dimensions (WxHxD) / Weight	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 625g (1.38 lb)	Ø184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)	Ø158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)	Ø158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)	Ø184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)	Ø158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)
Additional Features	Handover, Hallway View	Built-in wiper, Object auto tracking(Person/Vehicle), Target lock tracking	Object auto tracking(Person/Vehicle), Target lock tracking	Object auto tracking(Person/Vehicle), Target lock tracking	Built-in wiper, Object auto tracking(Person/Vehicle), Target lock tracking	Object auto tracking(Person/Vehicle), Target lock tracking

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	X | PTZ PLUS NEW		X | PTZ PLUS NEW	X | PTZ PLUS NEW	X | PTZ PLUS NEW	
	XNP-8250 6MP Network 25x PTZ	**XNP-6550RH** 2MP 55x IR PTZ Camera	**XNP-6400RW** 2MP Network 40x IR PTZ - built-in wiper	**XNP-6400R** 2MP Network 40x IR PTZ Camera	**XNP-6400** 2MP Network 40x PTZ Camera	**XNP-6371RH** 2MP 37x IR PTZ Camera
Imaging Device	1/2.8" CMOS	1/2.8" 2MP CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/1.9" 2MP CMOS
Min. Illumination	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec)	Colour : 0.02Lux (F1.6) B/W : 0Lux (IR LED on)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(IR LED On)	Colour : 0.05Lux (F1.5) B/W : 0Lux (IR LED on)
Video Output	-	CVBS 1.0Vp-p	-	-	-	CVBS 1.0Vp-p
Focal Length	5~125mm(25x) zoom digital 32x zoom)	4.75 ~ 261.4mm (55x) zoom	4.25~170mm(40x) zoom (digital 32x zoom)	4.25~170mm(40x) zoom (digital 32x zoom)	4.25~170mm(40x) zoom (digital 32x zoom)	6 ~ 222mm (37x) zoom
Angular Field of View	H: 57.42°(Wide)~2.71°(Tele) / V: 33.54°(Wide)~1.55°(Tele)	H : 58.6° (Wide) ~ 1.23° (Tele) / V : 34.8° (Wide) ~ 0.71° (Tele)	H: 65.66°(Wide)~1.88°(Tele) / V: 39.40°(Wide)~1.09°(Tele)	H: 65.66°(Wide)~1.88°(Tele) / V: 39.40°(Wide)~1.09°(Tele)	H: 65.66°(Wide)~1.88°(Tele) / V: 39.40°(Wide)~1.09°(Tele)	H : 59.3° (Wide) ~ 1.9° (Tele) / V : 35.8° (Wide) ~ 1.1° (Tele)
Pan / Tilt / Rotate	360° Endless / 110°(-20°~90°)	360° Endless / 95° (-5° ~ 90°) / -	360° Endless / 110°(-20°~90°)	360° Endless / 110°(-20°~90°)	360° Endless / 110°(-20°~90°)	360° Endless / 190° (-5° ~ 185°) / -
IR Viewable Length	-	500m (1,640.42ft)	200m(656.17ft), Wise IR	200m(656.17ft), Wise IR	-	350m (1,148.29ft)
Day & Night	Auto(ICR)	Auto (ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto (ICR)
Wide Dynamic Range	Extreme WDR (120dB)	120dB	Extreme WDR (150dB)	Extreme WDR(150dB)	Extreme WDR(150dB)	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNR
Digital Image Stabilization	Support(built-in gyro sensor)	Support (Built-in Gyro sensor)	Support(built-in gyro sensor)	Support (Built-in Gyro sensor)	Support(built-in gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics, Audio detection
Business Intelligence	-	-	-	-	-	-
Alarm I/O	4 selectable (available with SPM-4210)	4 / 2	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)	4 / 2
Audio I/O	1/1 (available with SPM-4210)	Selectable (mic in/line in) / Line out	1/1 (available with SPM-4210)	1/1 (available with SPM-4210)	1/1 (available with SPM-4210)	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	6MP / 30fps	2MP / 60fps	-	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDH C/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40°C~+60°C(-40°F ~ +140°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165°F)	-50°C ~ +55°C (-122°F ~ +131°F) * Start up above -30°C (HPoE Mode)	Normal : -40°C~+55° (-40°F ~ +131°F) Less than 95% RH(Non-condensing)	-40°C~+55°C(-40°F~+131°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165°F)	-40°C~+55°C(-40°F~+131°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165°F)	-50°C ~ +55°C (-122°F ~ +131°F)
Certification	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)	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)	IP66, IK10
Power Consumption	Typical 20W, Max 25W	HPoE : 60W 24VAC : Max 92W	HPoE(Camera only): Max 42W	Typical 20W, Max 40W	Typical 20W, Max 25W	24VAC : Max 90W
Dimensions (WxHxD) / Weight	Ø158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1Kg (15.65 lb)	Ø184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)	Ø158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)	Ø158x293.3mm (6.22x11.55") 3.2Kg(6.17lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1Kg (15.65 lb)
Additional Features	Object auto tracking(Person/Vehicle), Target lock tracking	Defog, Auto tracking	Built-in wiper, Object auto tracking(Person/Vehicle), Target lock tracking	Object auto tracking(Person/Vehicle), Target lock tracking	Object auto tracking(Person/Vehicle), Target lock tracking	Defog, Auto tracking

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	XNP-6320RH 2MP 32x IR PTZ Camera	**XNP-6321H / XNP-6321** 2M 32x Network PTZ Dome Camera	**XNP-6320H/6320** 2MP PTZ Camera	**XNP-6320HS** 2MP Stainless 32x PTZ Camera	**XNP-6120H** 2MP 12x PTZ Camera	**XNP-6040H** 2MP 4.3x PTZ Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2.4M CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2.16MP CMOS	1/2.8" 2.16MP CMOS
Min. Illumination	Colour : 0.05Lux (F1.6) B/W : 0Lux (IR LED On)	Colour : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)	Colour : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)	Colour : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)	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: 1.0Vp-p	CVBS : 1.0Vpp	CVBS 1.0Vp-p, Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (Optical 32x)	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (32x) zoom	5.2 ~ 62.4mm (12x) zoom	2.8 ~ 12mm (4.3x) zoom
Angular Field of View	H : 61.8° (Wide) ~ 2.19° (Tele) / V : 36.2° (Wide) ~ 1.24° (Tele)	H : 61.8°(Wide) ~ 2.19°(Tele) / V : 36.2° (Wide) ~ 1.24°(Tele)	H : 61.8° (Wide) ~ 2.19°(Tele) / V : 36.2° (Wide) ~ 1.24°(Tele)	H : 61.8° (Wide) ~ 2.19° (Tele) / V : 36.2° (Wide) ~ 1.24° (Tele)	H : 54.58°(Wide) ~ 5.30 °(Tele) / V : 32.19° (Wide) ~ 3.00° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7 °(Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	360° Endless / 95°(-5° ~ 90°) / -	360° Endless / 210° (-15° ~ 195°)	360° Endless / 210° (-15° ~ 195°) / -	360° Endless / 210° (-15° ~ 195°) / -	360° Endless / 190° (-5° ~ 185°) / -	0° ~ 355° / 0° ~ 90°
IR Viewable Length	200m (656.17ft)	-	-	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis) Appear, Audio detection, Face detection, Motion detection, Sound classification	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification
Business Intelligence	-	-	-	-	-	-
Alarm I/O	4 / 2	4 / 2	4 / 2	4 / 2	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	-	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	HPoE : -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C 24VAC : -50°C ~ +55°C (-58°F ~ +131°F)	24V AC : -50°C ~ +55°C (-58°F ~ +131°F) / Less than 90% RH PoE+ : -35°C ~ +55°C (-31°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C (-22°F) (XNP-6321H) -10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH (XNP-6321)	PoE+ : -35°C ~ +55°C (-31°F ~ +131°F) 24VAC : -50°C ~ +55°C (-58°F~+131°F) (XNP-6320H) -10°C ~ +55°C(-14°F ~ +131°F) (XNP-6320)	PoE+ : -35°C ~ +55°C (-31°F ~ +131°F) 24VAC : -50°C ~ +55°C (-58°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)
Certification	IP66, IK10	IP66, IK10 (XNP-6321H)/ IK10	IP66, IK10 (XNP-6320H) IK10 (With SHP-3701H) (XNP-6320)	IP67, IP66, NEMA4X, IK10	IP66, IK10	IP66, IK10
Power Consumption	HPoE : Max 51W, typical 30W 24VAC : Max 83W, typical 30W	Max. 24W (Heater Off), Max. 65W (Heater on, 24V AC) (XNP-6321H) Max. 20W (XNP-6321)	PoE+, 24VAC : Max 24W - Heater off 24VAC : Max 65W - Heater on (XNP-6320H) PoE+, 24VAC : Max 20W (XNP-6320)	24VAC : Max 65W	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") 6.8Kg (14.99 lb)	Ø223.4 x 293.6mm (8.8" x 11.56") (XNP-6321H) Ø152.0 x 218.0mm (5.98" x 8.58") (XNP-6321)	Ø220 x 293.6mm (Ø8.66" x 11.56") 3.3Kg (7.28 lb) (XNP-6320H) Ø152 x 218mm (Ø5.98" x 8.58") 1.7Kg (3.75 lb) (XNP-6320)	Ø227 x 296mm (Ø8.94" x 11.65") 5.3Kg (11.69 lb)	Ø168.0 x 161.5mm (Ø6.61" x 6.36") 1.9kg (4.19 lb)	Ø136.1 x 106.1mm (Ø5.36" x 4.18") 0.78 kg (1.72 lb)
Additional Features	Defog, Auto tracking	Defog	Defog, Auto tracking	Defog, Auto tracking, SUS316L	Defog, Auto tracking	Defog, Auto tracking

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WISENET Q series

Compact Cameras with Essential Qualities

This affordable product line delivers professional quality, ideal for securing small to medium sized applications. The Q series has the ability to create a secure environment with its complete lineup, saving both installation costs and time.

High quality cameras offering cost effective solutions

The Q series cameras are affordable products that offer essential features in creating a safe and secure environment.

The Q series delivers sharp and clear image quality in 5MP, 4MP and 2MP, ideal in securing small to medium sized applications such as retail, banking and offices.

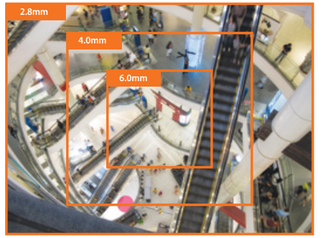
- Compact design with affordable price
- 5MP, 4MP & 2MP resolution
- Framerate Max. 30fps
- WDR 120dB
- WiseStream II
- Intelligent video analytics
- IR viewable length up to 30m
- Hallway view (Rotate 90°/270°)
- Micro SD/SDHC/SDXC memory slot
- Video output CVBS, PoE

Various lens options

Fixed Lens

The Wisenet Q series fixed-lens models are available with focal lengths of 2.8mm, 4.0mm and 6.0mm.

The 2.8mm lens is available if you prefer a wide-angle view. If an area to monitor is located further away from the camera, the 6.0mm lens can be utilized.



Varifocal Lens

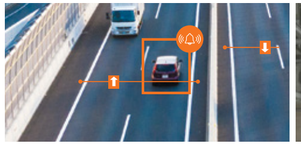
The 3.2 ~ 10mm (3.1x) varifocal lens, created by Hanwha Techwin's own advanced technology, offers greater flexibility in the field of view. The motorized zoom option provides quick and easy megapixel focus using the simple focus feature.

Enhanced video analytics

The Wisenet Q series cameras are equipped with a wide range of Intelligent Video Analytics features, helping users detect different types of incidents and have full situational awareness of their facility.

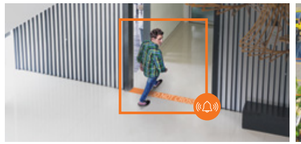
Defocus Detection
Create an alarm if the focus is blurred.

Tampering Detection
Create an alarm if the camera lens is covered or an unauthorized movement changes the field of view.



Directional Detection
Create an alarm if an object is detected in the preset direction.

Motion Detection
Create an alarm if movement is detected in a designated area.



Virtual Line
Create an alarm if an object is detected passing through a virtual line.

Enter / Exit
Create an alarm if an object enters or exits a designated area.

WISENET

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Q SERIES
ANALOG
PERIPHERAL
ACCESSORY

Q mini Super-compact Cameras

Super-compact design fits everywhere

Wisenet Q mini line-up is designed as 99mm super-compact sized. Thanks to this feature, the cameras perfectly blends into any environment while facilitating an effortless installation anywhere.

99mm / 3.9in

Business intelligence for smarter retail

People counting*

Wisenet Q mini cameras have a business intelligence function that offers retailers the opportunity to measure store efficiency. People counting applications display hotspots within a store, which allow marketing personnel to identify the busiest times of the day, helping them manage customer flow and understand buying patterns.

*Available on select Q series cameras

Micro HDMI Output

Available on QND-8011 and QND-8021

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	QNB-8002 5MP Box Camera	QNO-8080R 5MP IR Bullet Camera	QNO-8010R/8020R/8030R 5MP IR Bullet Camera	QND-8080R 5MP IR Dome Camera	QND-8010R/8020R/8030R 5MP IR Dome Camera
Imaging Device	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS
Min. Illumination	Colour : 0.07Lux (F1.2) B/W : 0Lux (IR LED on)	Colour : 0.2Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F2.0) Colour : 0.15Lux (F1.6) (QNO-8020R) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F2.0) Colour : 0.15Lux (F1.6) (QND-8020R) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	CVBS 0.15 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	-	3.2 ~ 10mm (3.1x) motorized varifocal	2.8mm fixed (QNO-8010R) 4.0mm fixed (QNO-8020R) 6.0mm fixed (QNO-8030R)	3.2 ~ 10mm (3.1x) motorized varifocal	2.8mm fixed (QND-8010R) 4.0mm fixed (QND-8020R) 6.0mm fixed (QND-8030R)
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 : 104.7° / V : 76.5° / D : 136.0° (QNO-8010R) H : 79.8° / V : 58.1° / D : 105.9° (QNO-8020R) H : 49.4° / V : 37.4° / D : 61.0° (QNO-8030R)	H : 100.3° (Wide) ~ 31.2° (Tele) / V : 72.3° (Wide) ~ 23.5° (Tele) / H : 133.1° (Wide) ~ 38.8° (Tele)	H : 104.7° / V : 76.5° / D : 136.0° (QND-8010R) H : 79.8° / V : 58.1° / D : 105.9° (QND-8020R) H : 49.4° / V : 37.4° / D : 61.0° (QND-8030R)
Pan / Tilt / Rotate	-	-	-	0°~350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (QNO-8010R) 25m (82.02ft) (QNO-8020R) 30m (98.42ft) (QNO-8030R)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Line in / Line out	-	-	-	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +60°C (-22°F ~ +140°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +50°C (+14°F ~ +122°F)	-10°C ~ +50°C (+14°F ~ +122°F)
Certification	-	IP66, IK10	IP66, IK10	-	-
Power Consumption	PoE : Max 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W	PoE : Max 9.5W, typical 7.3W	PoE : Max 7.5W, typical 6.1W	PoE : Max 8.9W, typical 6.6W	PoE : Max 6.8W, typical 5.0W PoE : Max 7.5W, typical 5.8W (QND-8010R)
Dimensions (WxHxD) / Weight	73.8 x 66.6 x 136.2mm (2.91" x 2.62" x 5.36") 320g (0.71lb)	Ø91 x 322.9mm (Ø3.58" x 12.71") 1190g (2.624 lb)	Ø70.0 x 246.0mm (Ø2.76" x 9.69") 680g (1.499 lb)	Ø120.3 x 102.0mm (Ø4.74" x 4.02") 430g (0.948 lb)	Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794 lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View

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	QND-8011/8021 5MP Dome Camera	QNV-8080R 5MP IR Vandal Dome Camera	QNV-8010R/8020R/8030R 5MP IR Vandal Dome Camera	QNE-8011R/8021R 5MP IR Flateye Camera	QNE-7080RV/7080RVW 4MP IR Flateye Camera
Imaging Device	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/3" 4MP CMOS
Min. Illumination	Colour : 0.15Lux (F2.0) (QND-8011) Colour : 0.15Lux (F1.6)	Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F2.0) Colour : 0.15Lux (F1.6) (QNV-8020R) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F1.6) Colour : 0.15Lux (F2.0) (QNE-8011R) B/W : 0Lux (IR LED on)	Colour : 0.2Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	Micro HDMI	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	-
Focal Length	2.8mm fixed (QND-8011) 4mm fixed (QND-8021)	3.2 ~10mm (3.1x) motorized varifocal	2.8mm fixed (QNV-8010R) 4.0mm fixed (QNV-8020R) 6.0mm fixed (QNV-8030R)	2.8mm fixed (QNE-8011R) 4.0mm fixed (QNE-8021R)	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 104.4° / V : 76.7° / D : 136.1°(QND-8011) H : 80.1° / V : 58.0° / D : 105.8° (QND-8021)	H : 100.3° (Wide) ~ 31.2° (Tele) / V : 72.3° (Wide) ~ 23.5° (Tele) / H : 133.1° (Wide) ~ 38.8 °(Tele)	H : 79.8° / V : 58.1° / D : 105.9°(QNV-8010R) H : 79.8° / V : 58.1° / D : 105.9° (QNV-8020R) H : 49.4° / V : 37.4° / D : 61.0° (QNV-8030R)	H : 104.4° / V : 76.7° / D : 136.1° (QNE-8011R) H : 80.1° / V : 58.0° / D : 105.8° (QNE-8021R)	H : 100.0° ~ 30.5° / V : 55.7° ~ 18.3° / D : 119.6° ~ 35.3°
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 75° / 0° ~ 360°	0° ~ 350° / 0° ~ 70° / 0° ~ 360°
IR Viewable Length	-	30m (98.42ft)	20m (65.62ft)(QNV-8010R) 25m (82.02ft) (QNV-8020R) 30m (98.42ft) (QNV-8030R)	20m (65.62ft)	30m (98.43ft)
Day & Night	Auto (Electrical)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	People counting	-	-	-	-
Alarm I/O	-	1 / 1	1 / 1	-	1 / 1
Audio I/O	-	-	-	-	Line-in / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	4MP / 20fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI
Operating Temperature	-10°C ~ +40°C (+14°F ~ +104°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	IP42, IK08	IP66, IK10	IP66, IK10	IP67, IK10	IP66, IK10
Power Consumption	PoE : Max 5W, typical 4W	PoE : Max 8.9W, typical 6.6W	PoE : Max 7.2W, typical 5.4W, PoE : Max 7.5W, typical 5.8W (QNV-8010R)	PoE : Max 7.4W, typical 5.5W	PoE : Max 8.6W 12VDC : Max 7.7W
Dimensions (WxHxD) / Weight	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364 lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 700g (1.543 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124 lb)	Ø125 x 87.35mm (Ø4.92" x 3.44") 645g (1.422 lb)	Ø144.9 x 135.5mm (Ø5.70" x 5.33") 1.3Kg (2.87lb)
Additional Features	Super compact design, Hallway View	Hallway View	Hallway View	Hallway View	Hallway View

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	QNF-9010 12MP Network Fisheye Camera	QNF-8010 6MP Fisheye Camera	QNB-7000 4MP IR Bullet Camera	QNO-7080R 4MP IR Bullet Camera	QNO-7010R/7020R/7030R 4MP IR Bullet Camera
Imaging Device	1/2.3" 12MP CMOS	1/1.8" 6MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS
Min. Illumination	Colour: 0.39 Lux (F2.2, 1/30sec)	Colour: 0.2 Lux (F2.5, 1/30sec)	Colour : 0.15Lux B/W : 0.01Lux	Colour : 0.15Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.5Lux / 0.4Lux / 0.3Lux (F2.2) B/W : 0Lux (IR LED on)
Video Output	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p	-	-	-
Focal Length	1.08mm fixed focal	1.14mm fixed focal	Manual / DC Auto Iris	2.8 ~12mm (4.3x) motorized varifocal	2.8mm fixed (QNO-7010R) 3.6mm fixed (QNO-7020R) 6mm fixed (QNO-7030R)
Angular Field of View	H: 187° / V: 187° / D: 187°	H: 187° / V: 187° / D: 187°	-	H : 109.7° ~ 26.0° / V : 60.8° ~ 15.2° / D : 131.3° ~ 30.1°	H : 110.0° / V : 63.0° / D : 128.0° (QNO-7010R) H : 81.0° / V : 45.0° / D : 95.0° (QNO-7020R) H : 53.0° / V : 31.0° / D : 62.0° (QNO-7030R)
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	-	30m (98.43ft)	20m (65.62ft) / 25m (82.02ft) / 30m (98.43ft)
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSDR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Defocus detection, Motion detection, Tampering	Defocus detection, Motion detection, Tampering	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	People counting, Heatmap	People counting, Heatmap	-	-	-
Alarm I/O	-	-	Input 1ea / Output 1ea	1 / 1	1 / 1
Audio I/O	-	-	Bi-dierctional (2-Way)	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -
Video Compression	H.265/H.264: Main/High, MJPEG	H.265, H.264, MJPEG	H.265 / H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	12MP / 30fps	6MP / 30fps	4MP / 25fps	4MP / 20fps	4MP / 20fps
WiseStream	WiseStream II	WiseStream II	WiseStream	WiseStream	WiseStream
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI Wisenet open platform	ONVIF Profile S/G/T, SUNAPI Wisenet open platform	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Operating Temperature	-10°C ~ +40°C(+14°F ~ +104°F) / Less than 90% RH	-10°C ~ +55°C(+14°F ~ +131°F) / Less than 90% RH	-10°C ~ +55°C (+14°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)
Certification	IP42	IP42	IPv4, IPv6	IP66, IK10	IP66, IK10
Power Consumption	PoE: Max 7.7W, typical 6.4W	PoE: Max 6.4W, typical 4.6W	Max. 5.4W (12V DC) Max. 6.2W (PoE),	PoE : Max 8W 12VDC : Max 7W	PoE : Max 7W 12VDC : Max. 6W
Dimensions (WxHxD) / Weight	Ø99x49mm(Ø3.9x1.93") 370g	Ø99x49mm(Ø3.9x1.93") 320g(0.705 lb)	73.8 x 66.6 x 139.8mm (2.91" x 2.62" x 5.50") 298g (0.66 lb)	Ø70.0 x 246.0mm (Ø2.76" x 9.69") (Without sunshield) 750g (1.65 lb)	Ø70.0 x 246.0mm (Ø2.76" x 9.69") (Without sunshield) 730g (1.61 lb)
Additional Features	-	-	Lens distortion correction, Hallway View, WiseStream	Hallway View	Hallway View

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	QND-7080R 4MP IR Dome Camera	QND-7010R/7020R/7030R 4MP IR Dome Camera	QNV-7080R 4MP IR Vandal Dome Camera	QNV-7010R/7020R/7030R 4MP IR Vandal Dome Camera
Imaging Device	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS
Min. Illumination	Colour : 0.15Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.5Lux / 0.4Lux / 0.3Lux (F2.2) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.5Lux (F2.0) / 0.4Lux / 0.3Lux (F2.2) B/W : 0Lux (IR LED on)
Video Output	-	-	-	-
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	2.8mm fixed (QND-7010R) 3.6mm fixed (QND-7020R) 6mm fixed (QND-7030R)	2.8 ~ 12mm (4.3x) motorized varifocal	2.8mm fixed (QNV-7010R) 3.6mm fixed (QNV-7020R) 6mm fixed (QNV-7030R)
Angular Field of View	H : 109.7° ~ 26.0° / V : 60.8° ~ 15.2° / D : 131.3° ~ 30.1°	H : 110.0° / V : 63.0° / D : 128.0° (QND-7010R) H : 81.0° / V : 45.0° / D : 95.0° (QND-7020R) H : 53.0° / V : 31.0° / D : 62.0° (QND-7030R)	H : 109.7° ~ 26.0° / V : 60.8° ~ 15.2° / D : 131.3° ~ 30.1°	H : 110.0° / V : 63.0° / D : 133.0° (QNV-7010R) H : 81.0° / V : 45.0° / D : 95.0° (QNV-7010R) H : 53.0° / V : 31.0° / D : 62.0° (QNV-7010R)
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)	20m (65.62ft) / 25m (82.02ft) / 30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (Built-in mic) / -	Selectable (Built-in mic) / -	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	4MP / 20fps	4MP / 20fps	4MP / 20fps	4MP / 20fps
WiseStream	WiseStream	WiseStream	WiseStream	WiseStream
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	-	IK08	IP66, IK10	IP66, IK10
Power Consumption	PoE : Max 7.2W 12VDC : Max 6.4W	PoE : Max 7W 12VDC : Max 5.8W (QND-7010R) PoE : Max 6.5W 12VDC : Max 5.43W (QND-7020R/7030R)	PoE : Max 7.2W 12VDC : Max 6.4W	PoE : Max 7W 12VDC : Max 5.8W (QNV-7010R) PoE : Max 6.8W 12VDC : Max 5.7W (QNV-7020R/7030R)
Dimensions (WxHxD) / Weight	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 355g (0.78 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 290g (0.64 lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 680g (1.5 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 490g (1.08 lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View

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	QNB-6002 2MP Box Camera	QNO-6082R 2MP IR Bullet Camera	QNO-6012R/6022R/6032R 2MP IR Bullet Camera	QND-6082R 2MP IR Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.01Lux (F1.2) B/W : 0Lux (IR LED on)	Colour : 0.095Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.1Lux (F2.0) Colour : 0.1Lux (F1.6) (QNO-6022R) B/W : 0Lux (IR LED on)	Colour : 0.095Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	-	3.2 ~ 10mm (3.1x) motorized varifocal	2.8mm fixed (QNO-6012R) 4mm fixed (QNO-6022R) 6mm fixed (QNO-6032R)	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	-	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele) /	H : 113.74° / V : 61.5° / D : 134.45° (QNO-6012R) H : 87.6° / V : 46.4° / D : 104.5° (QNO-6022R) H : 52.8° / V : 30.3° / D : 60.4° (QNO-6032R)	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)
Pan / Tilt / Rotate	-	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (QNO-6012R) 25m (82.02ft) (QNO-6022R) 30m (98.43ft) (QNO-6032R)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-
Alarm I/O	1 / 1	1/1	1/1	1 / 1
Audio I/O	Line in / Line out	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Built-in mic / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	-
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +60°C (-22°F ~ +140°F)/ Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	-	IP66, IK10	IP66, IK10	-
Power Consumption	PoE : Max 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W	PoE : Max 7.4W, typical 5.4W 12VDC : Max 6.5W	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W
Dimensions (WxHxD) / Weight	73.8 x 66.6 x 136.2mm (2.91" x 2.62" x 5.36") 320g (0.71lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") 900g (1.984 lb)	Ø70.0 x 246.0mm (Ø2.76" x 9.69") 700g (1.543 lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705 lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View

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	Q mini			
	QND-6012R/6022R/6032R 2MP IR Dome Camera	**QND-6011/6021** 2MP Dome Camera	**QNV-6082R** 2MP IR Vandal Dome Camera	**QNV-6012R/6022R/6032R** 2MP IR Vandal Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.1Lux (F2.0) Colour : 0.1Lux (F1.6) (QND-6022R) B/W : 0Lux (IR LED on)	Colour : 0.1Lux (F2.0) (QND-6011) Colour : 0.1Lux (F1.6) (QND-6021)	Colour : 0.095Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.1Lux (F2.0) Colour : 0.1Lux (F1.6) (QNV-6022R) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	-	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	2.8mm fixed (QND-6012R) 4mm fixed (QND-6022R) 6mm fixed (QND-6032R)	2.8mm fixed (QND-6011) 4mm fixed (QND-6021)	3.2 ~ 10mm (3.1x) motorized varifocal	2.8mm fixed (QNV-6012R) 4mm fixed (QNV-6022R) 6mm fixed (QNV-6032R)
Angular Field of View	H : 113.74° / V : 61.5° / D : 134.45° (QND-6012R) H : 87.6° / V : 46.4° / D : 104.5° (QND-6022R) H : 52.8° / V : 30.3°/ D : 60.4° (QND-6032R)	H : 113.74° / V : 61.5° / D : 134.45° (QND-6011) H : 87.6° / V : 46.4° / D : 104.5° (QND-6021)	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)	H : 113.74° / V : 61.5° / D : 134.45° (QNV-6012R) H : 87.6° / V : 46.4° / D : 104.5° (QNV-6022R) H : 52.8° / V : 30.3° / D : 60.4° (QNV-6032R)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)	-	30m (98.42ft)	20m (65.62ft) (QNV-6012R) 25m (82.02ft) (QNV-6022R) 30m (98.42ft) (QNV-6032R)
Day & Night	Auto (ICR)	Auto (Electrical)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	People counting	-	-
Alarm I/O	1 / 1	-	1 / 1	1 / 1
Audio I/O	Built-in mic / -	-	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	-	IP42, IK08	IP66, IK10	IP66, IK10
Power Consumption	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W	PoE : Max 4.8W, typical 2.8W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W
Dimensions (WxHxD) / Weight	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 255g (0.562 lb)	Ø99 x 56mm (Ø3.9" x 2.2") 145g (0.320 lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 710g (1.565 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124 lb)
Additional Features	Hallway View	Super compact design, Hallway View	Hallway View	Hallway View

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	QNV-6023R 2MP Mobile IR Flat Camera	**QNV-6024RM** 2MP Mobile IR Flat Camera	**QNP-6230H/6230** 2MP 23x PTZ Camera	**QNP-6230RH** 2MP 23x Network IR PTZ Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2.4MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour: 0.03Lux(F2.0, 1/30sec) BW: 0Lux(IR LED on)	Colour: 0.03Lux(F2.0, 1/30sec) BW: 0Lux(IR LED on)	Colour : 0.2Lux (F1.6) B/W : 0.01Lux (F1.6)	Colour : 0.05Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)
Video Output	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS: 1.0 Vp-p
Focal Length	3.6mm fixed focal	3.6mm fixed focal	4.44 ~ 102.2mm (Optical 23x)	4.44~102.2mm(23x) zoom
Angular Field of View	H: 94.8° / V: 49.3° / D: 114.3°	H: 94.8° / V: 49.3° / D: 114.3°	H : 61.8° (Wide) ~ 3.08° (Tele) / V : 36.2° (Wide) ~ 1.73° (Tele)	H: 61.8°(Wide)~3.08°(Tele) / V: 36.2°(Wide)~1.73°(Tele)
Pan / Tilt / Rotate	±5° / 0°~67° / ±90°	±5° / 0°~67° / ±90°	360° Endless / 210° (-15° ~ 195°)	360° Endless / 95° (-5° ~ 90°)
IR Viewable Length	15m(49.21ft)	15m(49.21ft)	-	100m (328.08ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNRV	SSNRV
Digital Image Stabilization	-	-	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Intelligent analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line
Business Intelligence	-	-	-	-
Alarm I/O	-	-	4 / 2	4 / 2
Audio I/O	Line-in	Selectable(mic in/line in/built-in mic) Line out, Max.output level: 1Vrms	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265/H.264, MJPEG	H.265/H.264, MJPEG	H.265, H.264, MJPEG	H.265/H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 10 Profiles	Up to 10 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), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF profile S/G, SUNAPI	ONVIF Profile S/G/T, SUNAPI (HTTP API), Wisenet open platform
Operating Temperature	-30°C ~ +55°C(-22°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C(-22°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	24VAC : -50°C~+55°C (-58°F ~ +131°F) / Less than 90% RH HPoE : -40°C~+55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -35°C*
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10 (QNP-6320H) IK10 (With SHP-3701H) (QNP-6320)	IP66, IK10
Power Consumption	PoE: Max 6.70W, typical 5.00W	PoE: Max 6.70W, typical 5.00W	PoE+, 24VAC : Max. 24.0W - Heater Off, 24VAC : Max. 65.0W - Heater On (QNP-6230H) PoE+, 24VAC : Max. 20.0W (QNP-6230)	24VAC: Max. 83W (typical : 30W) HPoE : Max. 51W (typical : 30W)
Dimensions (WxHxD) / Weight	Ø98.9 x 52.0 x 100.0mm (Ø3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø98.9 x 52.0 x 100.0mm (Ø3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø223.4 x 293.6mm (Ø8.8" x 11.56") 1.7Kg (3.75 lb) (QNP-6230H) Ø152.0 x 218.0mm(Ø5.98" x 8.58") 1.7Kg (3.75 lb) (QNP-6230)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 6.8Kg (14.99 lb)
Additional Features	-	-	Defog	-

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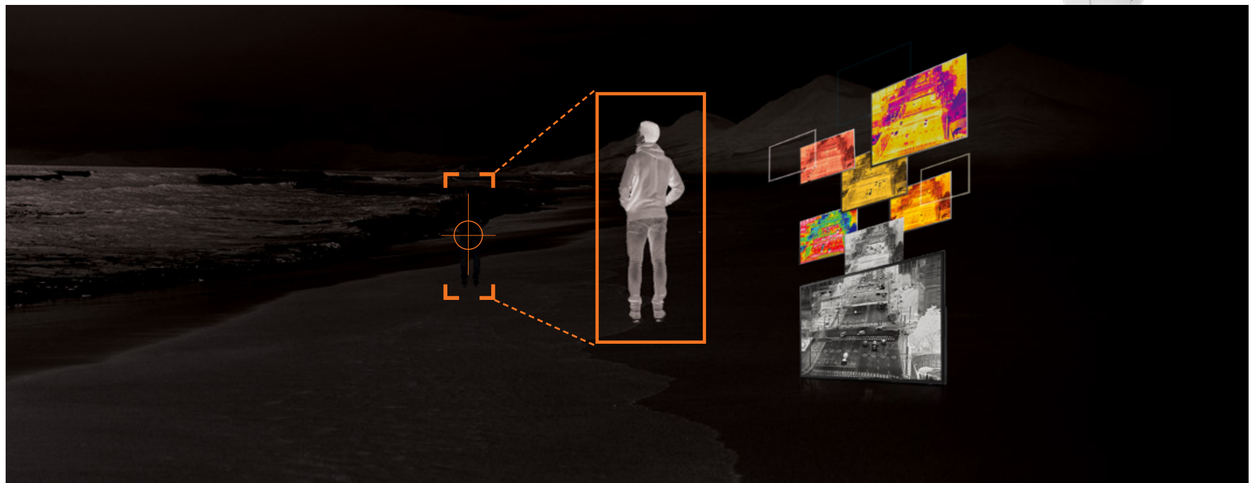
wisenet T series

Specialized Cameras for Challenging Conditions

T series offers explosion proof and thermal cameras which ensure a reliable video surveillance system even in the most challenging conditions. The explosion proof cameras can be used in heavy industrial facilities where a single spark may cause an explosion, while the thermal cameras are suitable for detecting people and objects in difficult weather conditions.



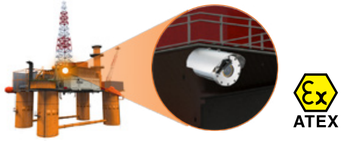
Explosion-proof Cameras

Explosion Proof Cameras for Hazardous Environments

Wisenet T series explosion proof cameras can be used in heavy industrial facilities such as gas pipelines, petrochemical plants or oil refineries which are potentially explosive because of flammable gases and dusts emitted.

Stainless Steel 316L Enclosure to Prevent Explosions

The ATEX certified enclosure made of stainless steel 316L housing has the ability to contain any internal explosions or prevent sparks from escaping the device which may lead to a disaster.

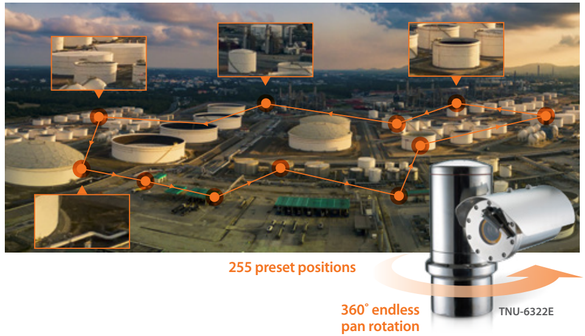


Defog technology to improve image clarity

The defog function is an image processing technology which helps improve image clarity in poor weather conditions such as fog or yellow dust. The visibility of the cameras can be enhanced in any weather condition so that users can monitor images around the clock.

360° endless pan rotation and 255 preset mode

TNU-6320E is capable of monitoring a wide area, with its 360° endless pan and 180° tilt feature moving at 1~50° /sec preset speed. In addition, the camera's flexibility is increased by 255 preset positions, allowing users to save settings for pan/tilt functions and automatically view the location desired.



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VGA and QVGA Thermal Cameras

See the unseen with thermal cameras

Wisenet thermal imaging technology provides high contrast images based on temperature differences between the object and background, enabling users to detect incidents more easily in challenging environments.

Fog

Snow

Darkness

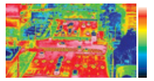
Camouflage

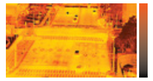
Multiple colour palettes

Wisenet thermal cameras provide seven different types of colour palette for users to select the best image in various situations. Each colour palette has a specific set of colours which change according to the temperature range of the scene.

White hot

Black hot


Rainbow

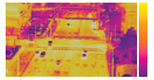

Custom

Sepia

TNO-4051T/4041T

TNO-4050T/4040T/4030T
TNO-3030T/3020T/3010T

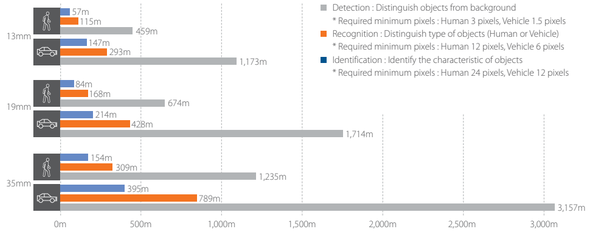
Red


Iron

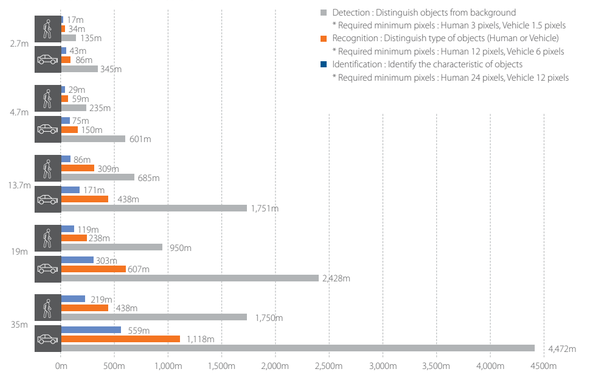
Long detection range up to 3,157m

The main task of the thermal camera is to detect events that occur at long distances. Wisenet thermal cameras are equipped with a 35/19/13mm lens (Horizontal FoV 17°/32°/49°) to detect vehicles up to 3,157m away.†
The camera provides an image with high colour contrast according to the temperature, so it can easily distinguish objects and background from a long distance. At closer range, it can recognise the type of object or identify the characteristic by capturing details.

TNO-4050T/4040T/4030T



TNO-3050T/3040T/3030T/3020T/3010T



* The height of the human is 1.8m (5.9ft) and vehicle is 2.3m (7.5ft)
† Refers to VGA only, QVGA values are different

Secure a wide variety of applications

Wisenet thermal cameras can be a powerful tool when monitoring applications where there is very little light, due to their ability to create images based on heat. Thermal cameras are especially applicable in manufacturing and industrial facilities, air and seaports, and mining areas.

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VGA Thermal Radiometric Camera

Temperature measurement to monitor incidents

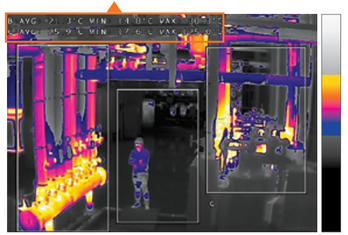
The Wisenet thermal radiometric camera has the added feature of being able to detect the temperature range of -20°C to +130°C. Alarms are generated and sent to users whenever the temperature of three areas in the monitoring screen is above or below a defined value or the temperature increases or decreases beyond the preset range.

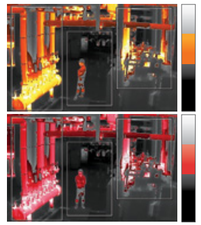
In addition, the screen displays average/minimum/maximum temperature of the three areas for more thorough temperature measurement. With accurate temperature measurement, radiometric cameras are perfect for monitoring high-risk areas such as power plants with fire hazards.

Selected temperature range displayed in vivid colours

Using a hybrid colour palette, the selected range of temperatures can be displayed in vivid colours, helping users observe monitoring areas with greater ease. The temperature of the defined range is expressed in white hot or black and white, ensuring the camera covers the entire monitoring areas with thermal detection.

Temperature of 3 areas displayed on screen


Iron-WH


Midrange-WH / Red-WH

Hybrid colour palette

VGA Thermal Positioning Camera

Broad thermal monitoring with positioning

Combines a thermal imaging camera and a positioning unit capable of monitoring a wide area, with its 360° endless pan and -90° to +40° tilt. In addition, the camera's flexibility is increased by 300 preset positions, allowing users to save the settings for pan/tilt functions and automatically view the location desired.

300 preset positions

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	TNM-3630TDY Temperature Detection Thermal Camera	TNB-9000 8K Box Camera	TNV-8010C 5MP Corner Mount Camera	TNV-7010RC 3MP IR Corner Mount Camera	TNO-6321E 2MP Explosion-proof Camera
Imaging Device	Uncooled micro bolometer (320x240)	43.3mm Full-frame CMOS	1/2.8" CMOS	1/2.8" 3.2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	Colour : 0.015Lux(F1.4) BW : 0.0015Lux(F1.4)	Colour: 0.1 lux (F2.3, 1/30sec) B/W: 0.02 lux (F2.3, 1/30sec)	Colour : 0.3Lux (F2.0) B/W : 0Lux (IR LED on)	Colour : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B,	HDMI (1080p)	CVBS: 1.0 Vp-p, Micro USB Type B,	CVBS 1.0 Vp-p	-
Focal Length	4.7mm fixed	-	2.3mm fixed	2.8mm fixed	4.44 ~ 142.6mm (Optical 32x) zoom
Angular Field of View	H: 50.0˚, V: 36.4˚, D: 65.3˚	Canon 24mm, H: 57.4° Canon 35mm, H: 42.6° Canon 50mm, H: 30.9° Canon 85mm, H: 19.1° Canon 100mm, H: 16.0° Canon 70-200mm, H: 22.8° ~ 8.0°	H: 131°, V: 93.4°, D: 174°	H : 102˚ / V : 75˚ / D : 129˚	61.8 (Wide)~2.19 (Tele) / V: 36.2(Wide)~1.24 (Tele)
Pan / Tilt / Rotate	-	-	-7~+7°	0˚ / ±15˚ / 0˚	-
IR Viewable Length	-	-	-	10m (32.8ft) with 940nm IR LED	-
Day & Night	-	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	-	-	120dB	120dB	120dB
Digital Noise Reduction	-	SSNR V	SSNR	SSNRV	SSNRV
Digital Image Stabilization	Support	-	Support	Support	Support
Analytics	Estimated Body Temperature: Temperature detection, Blackbody error Normal mode : Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection, Temperature detection	Deep Learning based analytics, Intelligent analytics, Audio detection, Sound classification	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 2	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.264, MJPEG
Resolution / Max. Frame Rate	-	8K/15fps, 24MP / 20fps, 15MP / 30fps, 4K/60fps	-	3MP / 30fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 6 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 1slot (128GB)	Micro SD/SDHC/SDXC	-
Application Programming Interface	-	ONVIF Profile S/G/T, SUNAPI	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S, SUNAPI, Wisenet open platform
Operating Temperature	EBT mode: +10°C~+35°C (+50°F~+95°F) / Less than 95% RH Normal mode: -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) Less than 95% RH	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)
Certification	-	-	IP66, IP6K9K, IK10	IP66, IP6K9K, IK10+	IP67, IK10, CE2460, EX II 2 GD, Ex d IIC T6 Gb IP67, Ex tb IIIC T85°C Db
Power Consumption	PoE+: Max. 17.0W 12VDC: Max. 14.5W	HPoE : Max 40W 12VDC : Max 35W	PoE: Max 6.49W	PoE : Max 12W 12VDC : Max 11W	24VAC : Max 28W
Dimensions (WxHxD) / Weight	135(W)x75(H)x188.5(D)mm (5.31x2.95x7.42"), 1.7kg(3.77lb)	118.5 x 120 x 180mm, 2.2kg (4.85lb)	143x122x73.7mm(5.6x4.8x2.9"), 815g(1.79lb)	236 x 236 x 126.5mm (9.29" x 9.29" x 4.98"), 2.2kg (4.85lb)	Ø162 x 244mm (Ø6.38" x 9.61"), 7Kg(15.43 lb)
Additional Features		8K, Canon EF mount	-	Anti ligature design, Invisible IR LED, Hallway View	Stainless (SUS316L) housing, Built in wiper

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TNU-6322E
2MP Explosion-proof Camera

TNU-6321
2M Network Positioning Camera

TNU-4041T / 4051T
VGA Thermal Positioning Camera

TNO-4041T/4051T
VGA Thermal Bullet Camera

TNO-4030T/4040T/4050T
VGA Thermal Bullet Camera

	TNU-6322E 2MP Explosion-proof Camera	TNU-6321 2M Network Positioning Camera	TNU-4041T / 4051T VGA Thermal Positioning Camera	TNO-4041T/4051T VGA Thermal Bullet Camera	TNO-4030T/4040T/4050T VGA Thermal Bullet Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer
Min. Illumination	Colour : 0.05Lux (F1.6) B/W: 0Lux(IR LED on)	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	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p, Micro USB Type B
Focal Length	4.44 ~ 142.6mm(32X) zoom	4.44~142.6mm(32x) zoom	19mm / 35mm fixed	19mm fixed (TNO-4041T) 35mm fixed (TNO-4051T)	13mm fixed (TNO-4030T) 19mm fixed (TNO-4040T) 35mm fixed (TNO-4050T)
Angular Field of View	H: 61.8°(Wide)~2.19°(Tele) / V: 36.2°(Wide)~1.24°(Tele)	H: 61.8°(Wide)~2.19°(Tele) / V: 36.2°(Wide)~1.24°(Tele)	H : 32° / V : 24.3° / D : 39.2° H : 17.2° / V : 13° / D : 22°	H : 32° / V : 24.3° / D : 39.2° (TNO-4041T) H : 17.2° / V : 13° / D : 22° (TNO-4051T)	H : 48.6° / V : 36.4° / D : 61.6° (TNO-4030T) H : 32° / V : 24.3° / D : 39.2° (TNO-4040T) H : 17.2° / V : 13° / D : 22° (TNO-4050T)
Pan / Tilt / Rotate	360° Endless / 180° (-90° ~ 90°) / -	360° Endless / -90° ~ 40°	360° Endless / -90° ~ 40°	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	-	-	-
Wide Dynamic Range	120dB	120dB	-	-	-
Digital Noise Reduction	SSNRV	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	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 2	1 / 2
Audio I/O	Selectable(mic in/line in)	Selectable(mic in/line in)	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.264, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	-	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +60°C (-22°F ~ +140°F)	-40°C~+55°C (-40°F ~ +131°F) / Less than 90% RH	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)
Certification	IECEx, ATEX, KCs, QAN, IP67, IK10	IP66, Safety(UL, KC-SDOC), EMC(FCC, CE, VCCI, RCM, KC)	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10 (TNO-4041T)	IP66, NEMA 4X, IK10 (TNO-4030T/4040T)
Power Consumption	24VAC: Max (TBD)W	Max 100W(Heater On), typical 25W(Heater Off)	24VAC : Max 84W - Heater On Max 62W - Heater Off	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W
Dimensions (WxHxD) / Weight	TBD 27Kg	219×528.2×460mm (8.62x20.79x18.11"), 14Kg (30.86 lb)	219 x 528 x 335mm (8.62" x 20.79" x 13.19") 11.7 kg (25.79lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 2,501g (5.51 lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3,175g (7.0 lb)
Additional Features	Stainless (SUS316L) housing, Built in wiper	-	Various colour palettes	Various colour palettes, PT type	Various colour palettes

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TNO-4041TR
VGA Radiometric Thermal Bullet Camera

TNO-4030TR/4040TR
VGA Radiometric Thermal Bullet Camera

TNO-3010T/3020T/3030T/3040T/3050T
QVGA Thermal Bullet Camera

TNB-6030
Public View Monitoring Camera

	TNO-4041TR VGA Radiometric Thermal Bullet Camera	TNO-4030TR/4040TR VGA Radiometric Thermal Bullet Camera	TNO-3010T/3020T/3030T/3040T/3050T QVGA Thermal Bullet Camera	TNB-6030 Public View Monitoring Camera
Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled micro bolometer	1/2.8" 2M CMOS
Min. Illumination	-	-	-	Colour : 0.06 Lux (1/30sec, F2.5)
Video Output	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	Micro HDMI (Max. 1920 x 1080 60fps)
Focal Length	19mm fixed	13mm fixed (TNO-4030TR) 19mm fixed (TNO-4040TR)	2.7mm fixed (TNO-3010T) 4.7mm fixed (TNO-3020T) 13.7mm fixed (TNO-3030T) 19mm fixed focal (TNO-3040T) 35mm fixed focal (TNO-3050T)	4.6mm
Angular Field of View	H : 32° / V : 24.3° / D : 39.2°	H : 48.6° / V : 36.4° / D : 61.6° (TNO-4030TR) H : 32° / V : 24.3° / D : 39.2° (TNO-4040TR)	H : 92° / V : 65.5° / D : 125.7° (TNO-3010T) H : 50° / V : 36.4° / D : 65.3° (TNO-3020T) H : 16° / V : 12° / D : 20° (TNO-3030T) H: 11.5°, V: 8.7°, D: 14.4° (TNO-3040T) H: 6.3°, V: 4.7°, D: 7.8° (TNO-3050T	H : 73.8° / V : 39.6° / D : 86.8°
Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	-	-	-	-
Day & Night	-	-	-	Auto (Electrical) / Colour / B/W
Wide Dynamic Range	-	-	-	150dB
Digital Noise Reduction	-	-	-	SSNRV (2D+3D noise filter) (Off / On)
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Off / On
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature difection, Sound classification, Shock detection	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis) Appear, Face detection, Motion detection, Digital auto tracking
Business Intelligence	-	-	-	-
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 / 30fps	640 x 480 / 30fps	320 x 240 / 30fps	640 x 480 / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G, SUNAPI (HTTP API), Open Platform
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH	+14°F ~ +122°F (-10°C ~ +50°C) / Less than 90% RH
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IPv4, IPv6
Power Consumption	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 8.7W 12VDC : Max 7.8W 24VAC : Max 9.2W	Max. 6W (12V DC), Max. 7W (PoE)
Dimensions (WxHxD) / Weight	Ø101.97 x 309mm (Ø4.01" x 12.17") 2,452g (5.41lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3,124g (6.89lb)	Φ147.51 x 375.3mm (Φ5.81" x 14.78") / 2512g (5.538lb) (TNO-3010T/3020T/3030T) Φ147.51 x 401.3mm (5.81 x 15.79") / 2742g(6.05lb) (TNO-3040T) Φ147.51 x 375.3mm (5.81 x 14.78") / 2495g (5.50lb) (TNO-3050T)	Main unit : 9.45" x 1.81" x 0.98" (240 x 46 x 25mm) Lens : 1.18" x 1.77" x 0.8" (30 x 45 x 20.4mm) 0.54 lb (245g)
Additional Features	Various colour palettes Spot temperature reading, PT type	Various colour palettes Spot temperature reading	Various colour palettes	Motion detection, Video & audio analytics, Network disconnect

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WISENET NVRs

Range of NVR's (Network Video Recorder) to suit everything from the smallest scale retail store to larger projects.

The intuitive and standardised interface of the NVR's allows current users to easily add on extra units.

NVR

PRN-6405DB4/6405B4
64CH 32MP NVR

XRN-6410DB4/6410B4
64CH 32MP NVR

XRN-3010A
64CH 12MP NVR

	PRN-6405DB4/6405B4	XRN-6410DB4/6410B4	XRN-3010A
Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps	300Mbps
Max # of Cameras	64	64	64
Internal Storage	Up to 16 SATA (Hot swap) Max. 160TB (Non RAID), Max.136TB (RAID 5)	Up to 16 SATA Max. 160TB (Non RAID), Max.136TB (RAID 5)	Up to 8 SATA (Max. 64TB)
External Storage	iSCSI	iSCSI	1 e-SATA
RAID	RAID-5/6	RAID-5/6	-
Hot Swap	Yes	-	-
Network Viewer Software	Wisenet WAVE, SSM, WebViewer, SmartViewer,Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (up to 4K) / Support dual monitor	2x HDMI (Up to 4K) / Support dual monitor	HDMI (Up to 4K), VGA / Support dual monitor : HDMI / VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• AI search support (BestShot, Attribute) • Dynamic Event support • N+1 failover supported • ARB redundancy supported • Easy configuration (P2P (QR Code)) • User friendly UI / UX • Dual SMPS (PRN-6405DB4)	• AI search support when working with Wisenet AI camera • Dynamic Event support • N+1 failover supported • ARB redundancy supported • Easy configuration (P2P (QR Code) • User friendly UI / UX • Dual SMPS (XRN-6410DB4)	• N+1 failover supported • ARB redundancy supported • WiseStream supported • Defocus event trigger • Easy configuration (Setup Wizard, P2P (QR Code))

PRN-3205B4
32CH 32MP NVR

XRN-3210B4
32CH 32MP NVR

XRN-2011A
32CH 12MP NVR

XRN-2010A
32CH 12MP NVR

	PRN-3205B4	XRN-3210B4	XRN-2011A	XRN-2010A
Os	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps	256Mbps, 100Mbps (RAID 5 mode)	256Mbps
Max # of Cameras	32	32	32	32
Internal Storage	Up to 16 SATA (Hot swap) Max. 160TB (Non RAID), Max.136TB (RAID 5)	Up to 16 SATA (Max. 160TB in non-RAID mode)	Up to 8 SATA (Hot swap) Max. 48TB (Non RAID), Max.36TB (RAID 5)	Up to 8 SATA (Max. 48TB) (XRN-2010)
External Storage	iSCSI	iSCSI	iSCSI	iSCSI, 1 e-SATA
RAID	RAID-5/6	RAID 5/6	RAID 5	-
Hot Swap	Yes	-	Yes	-
Network Viewer Software	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (up to 4K) Support dual monitor	2x HDMI (Up to 4K) Support dual monitor	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• AI search support (BestShot, Attribute) • Dynamic Event support • N+1 failover supported • ARB redundancy supported • Easy configuration (P2P (QR Code)) • User friendly UI / UX	• AI search support when working with Wisenet AI camera • Dynamic Event support • N+1 failover supported • ARB redundancy supported • Easy configuration (P2P (QR Code) • User friendly UI / UX	• N+1 failover supported • ARB redundancy supported • WiseStream supported • Easy configuration (Setup Wizard, P2P (QR Code))	• N+1 failover supported • ARB redundancy supported • WiseStream supported • Easy configuration (Setup Wizard, P2P (QR Code))

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XRN-1620SB1/1620B2
16CH NVR

XRN-1610SA/1610A
16CH 12MP NVR

XRN-820S
8CH NVR

XRN-810S
8CH 8MP NVR

Os	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	140Mbps	180Mbps	100Mbps	100Mbps
Max # of Cameras	16	16	8	8
Internal Storage	Up to 4 SATA (Max. 24TB) (XRN-1620SB1) Up to 8 SATA (Max. 80TB) (XRN-1620B2)	Up to 4 SATA (Max. 24TB) (XRN-1610SA) Up to 8 SATA (Max. 48TB) (XRN-1610A)	Up to 2 SATA (Max. 12TB)	Up to 2 SATA (Max. 12TB)
External Storage	-	iSCSI, 1 e-SATA	-	-
RAID	-	-	-	-
Network Viewer Software	WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• Plug & Play by 16 PoE Ports (XRN-1620SB1) • AI search support when working with Wisenet AI camera • Dynamic Event support • N+1 failover supported • ARB redundancy supported • Easy configuration (P2P (QR Code) • User friendly UI / UX	• Plug & play by 16 PoE / PoE+ Ports (XRN-1610SA) • WiseStream supported • Defocus event trigger • Easy configuration (Setup Wizard, P2P (QR Code)) (XRN-1610SA/1610A)		• Plug & play by 8 PoE / PoE+ Ports • ARB supported • Easy configuration (Setup Wizard, P2P (QR Code)) • Event push to smart phone • Transmission bandwidth 128Mbps • Defocus event trigger

XRN-410S
4CH 8MP NVR

QRN-1620S
16CH 8MP NVR

QRN-820S
8CH 8MP NVR

QRN-420S
4CH 8MP NVR

OS	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Max. Recording Bit Rate	50Mbps	128Mbps	80Mbps	40Mbps
Max # of Cameras	4	16	8	4
Internal Storage	Up to 1 SATA (Max. 6TB)	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)
Network Viewer Software	-	-	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	-	-	HDMI(8MP), VGA	HDMI(8MP), VGA
Network Viewer Software	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	-	
Local Monitor	HDMI (Up to 4K), VGA	HDMI(8MP), VGA	-	
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• Plug & play by 4 PoE / PoE+ Ports • ARB supported • Easy configuration (Setup Wizard, P2P (QR Code)) • Event push to smart phone • Transmission bandwidth 64Mbps • Defocus event trigger	• Plug & play by 16 PoE ports • ARB supported • Easy Configuration (Setup Wizard, P2P (QR Code)) • Event push to smart phone • Transmission bandwidth 128Mbps • Dual monitor • Dual track recording	• Plug & play by 8PoE ports • ARB supported • Easy Configuration (Setup Wizard, P2P (QR Code)) • Event push to smart phone • Transmission bandwidth 80Mbps • Dual track recording	• Plug & play by 4 PoE ports • ARB supported • Easy Configuration (Setup Wizard, P2P (QR Code)) • Event push to smart phone • Transmission bandwidth 50Mbps • Dual track recording

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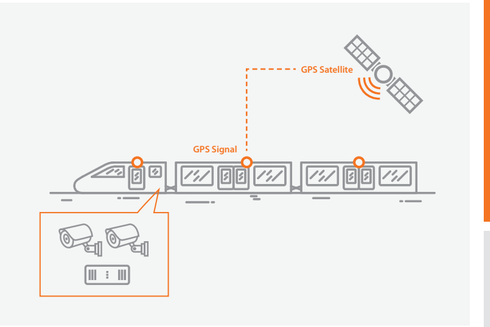
P / X / Q / T SERIES
ANALOG
PERIPHERAL
ACCESSORY

Wisenet Transportation

The perfect solution for mobile recording designed to be used in the Transport industry.



TRM-1610M/1610S
16CH 12MP Mobile NVR

TRM-810S
8CH 8MP Mobile NVR

TRM-410S
4CH 8MP Mobile NVR

OS	Linux	Linux	Linux
H/W	-	-	-
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Archiving Bandwidth	-	-	-
Playback Bandwidth	-	-	-
Max. Recording Bit Rate	128Mbps	80Mbps	50Mbps
Max # of Cameras	16 (4PoE, M12 : TRM-1610M / RJ-45 : TRM-1610S)	8 (8 PoE, RJ-45)	4 (4 PoE, RJ-45)
Internal Storage	Up to 2 SATA (Front-Swap) Max. 4TB (HDD, SSD)	Up to 2 SATA (Front-Swap) Max. 2TB (HDD) / Max. 4TB (SSD)	Up to 2 SATA (Front-Swap) Max. 2TB (HDD) / Max. 4TB (SSD)
RAID	RAID 1	RAID 1	-
Hot Swap	Yes (RAID 1)	Yes (RAID 1)	-
Network Viewer Software	SSM Transportation, WebViewer, Wisenet Mobile	SSM Transportation, WebViewer, Wisenet Mobile	SSM Transportation, WebViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• GPS supported • Wi-fi supported • Standards approval for transportation (EN50155) • Wide operating temperature range -40°C ~ +70°C (-40°F ~ +158°F)	• GPS supported • Wi-fi supported • Standards approval for transportation (EN50155) • Wide operating temperature range -25°C to +55°C (-13°F to +131°F)	• GPS supported • Wi-fi supported • Standards approval for transportation (EN50155) • Wide operating temperature range -25°C to +55°C (-13°F to +131°F)

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NETWORK

Encoder

SPE-1610A
16CH Encoder

SPE-410A
4CH Encoder

SPE-110A
1CH Encoder

Max. # of Cameras	16	4	1
Compatibility	SPD-151	-	-
Supported Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Max. Resolution	4MP/1080p/720p/WD1/4CIF/CIF	4MP/1080p/720p/WD1/4CIF/CIF	4MP/1080p/720p/WD1/4CIF/CIF
Max. Frame Rate per Channel	4MP : 15fps 1080p/720p/WD1/4CIF/CIF : 30fps(N), 25fps(P)	4MP : 15fps 1080p/720p/WD1/4CIF/CIF : 30fps(N), 25fps(P)	4MP : 15fps 1080p/720p/WD1/4CIF/CIF : 30fps(N), 25fps(P)
Bi-Directional Audio	Support	Support	-
RS-485	Support	Support	Support
Alarm I/O	16 / 4	4 / 2	-
SD Card	-	-	-
Application Programming Interface	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI
Power	12VDC : Max 24W	PoE & 12VDC : Max 9.6W	PoE : Max 4.0W 12VDC : Max 3.6W

Network Switch

8-Port PoE

SPN-10080PM

SPN-10080P

Maximum PoE Budget	64W
PoE Standard	IEEE802.3af / 802.3at
PoE Ports	Port 1 ~ 8 : PoE / PoE+
Switching Capacity	2.8Gbps
MAC Address Table Size	16K
Compatible Devices	Wisenet network cameras, TRM-1610M, TRM-1610S
1000 Base-T Interface	2 (M12, A-code, 8P female) (SPN-10080PM) 2 (RJ-45) (SPN-10080P)
100 Base-T PoE Interface	8 (M12, D-code, 4P female) (SPN-10080PM) 8 (RJ-45) (SPN-10080P)
MDI / MDIX Adjustable	Yes
Power Input	6P (Gender included)
Dimension (WxDxH)	270.0 x 125.6 x 95.8mm (10.63" x 4.94" x 3.77") (SPN-10080PM) 270.0 x 125.6 x 95.8mm (10.63" x 4.94" x 3.77") (SPN-10080P)
Weight	2.68 Kg (5.91 lb)(SPN-10080PM) 2.6 Kg (5.73 lb)(SPN-10080P)
Operation Temperature	-40°C ~ +75°C (-40°F ~ +167°F)
Operation /Storage Humidity	0% ~ 95% RH
Maximum Power Consumption	95W
Power Input	9 ~ 36V DC (Fanless)

Decoder

SPD-151
48CH Decoder

Video Out	HDMI, VGA, BNC
Resolution	HDMI up to 4K, VGA up to 1080p
Display	(HDMI) 1 / 4 / 9 / 16 / 25 / 36 (32Ch Only) (VGA) 1 / 4 / 9 / 16 (BNC) 1 Tile merge support
Power	12V DC, PoE
Compatibility	SPE-1610A
Additional Features	Up to 49CH, H.265 / H.264 / MJPEG codec, Layout Sequence Support Management using Web-Viewer Web browser based GUI Configuration) and SSM 2.10 support

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BlueBox video wall controller

A range of cost-effective, integrated video wall appliances tailored to the security and surveillance industry

Low powered high-density processing reduces power consumption and heat dissipation for reduced total cost of ownership.

Industries and applications

- Control rooms
- Transport hubs
- Emergency services
- Education campuses
- Government infrastructure
- Construction industry
- Hospitality and leisure facilities

Nano4K use for multiple streams to a single monitor

Six4K, Eight 1080 use for multiple streams to multiple monitors as single canvas or individual

Reliable

Designed and soak tested for 24/7 operation, the embedded wall control series from BlueBox Video provides users with the ultimate integrated video appliance. The custom carrier board is sourced from long-life industrial-grade Intel and NVIDIA components. A compact aluminum enclosure allows thermal optimization for challenging environments.

Professional

The 2U form factor of Eight1080 and Six4k reduces physical footprint saving rack mount space to a single appliance, additionally Nano4k model version can be VESA mounted locally to a monitor offering flexible and yet scalable installation. The controllers range supports standard VESA outputs from 480p through to 2160p Ultra High Definition. Internal EDID emulation allows output heads to remain active whilst powering cycling display devices. Active output re-drivers permit longer cable lengths up to 20 meters using DisplayPort between appliance and displays.

Affordable

The professional 2U video wall controllers typically operate at 180 Watts and Nano4k at 25 Watts, this is considered a much-reduced power consumption compared to existing solutions. Long-life professional grade embedded components also contribute to the total lower cost of ownership.

Powerful

Latest technologies from Intel and NVIDIA action capabilities across both processor (CPU) and graphics (GPU). A multi GPU acceleration model provides optimum appliance cost Vs performance results. Panoramic fisheye camera de-warping is performed on the GPU with no performance resources undertaken by the CPU. Common surveillance video formats are decoded and displayed on the GPU including H265, H264, MPEG2, MJPEG, VC-1, and VP8. CPU resource is undertaken when accelerated methods are either exhausted or unsupported.

Transparent

Appliance output heads are combined to generate a single Microsoft Windows 10 desktop canvass.
No restrictions exist on video placement, resolution, frame rate, transport or encode format across the desktop. Users create an unrestricted video layout design under a familiar Windows platform. Scale a single decoded video window across all display heads. Select either DisplayPort 1.2 or HDMI 2.0 for video output. Additional connectivity for video wall environments includes dual Gigabit Ethernet ports and four USB ports.

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ENCODER / DECODER / STORAGE
ANALOG
PERIPHERAL
ACCESSORY

Affordable video wall decoders that work seamlessly with Wisenet Wave VMS

Integration with Wisenet Wave

The BlueBox Video wall series presents users with a native Windows 10 platform for a choice of application. A simple installation wizard with Wisenet WAVE plugin optimizes the user experience for greater decode and display capacity. The native NVIDIA controller range allows SSM to take advantage of accelerated decoding. An optional SDK and TCP event service extends simple window management commands for open integration.

Wave Features

- Client control for real-time fisheye camera de-warping
- Client control for Pause, Play and Seek of archived video footage
- Trigger events and rules into layout actions
- Tap and zoom video streams across the entire video wall
- Push client workstation displays directly onto the video wall

Key Features

- Low powered high-density processing reduces power consumption and heat dissipation
- Integrated custom surveillance solution
- Designed and soak tested for 24/7 operation
- Long-life industrial grade Intel and NVIDIA components
- Compact aluminium enclosure for thermal optimisation
- Simple installation with Wisenet Wave
- Single Windows 10 desktop canvas across all output monitors
- Extended Display Identification Data (EDID) / Hot plug Emulation allows your windows desktop to remain whilst you turn your monitors on/off
- Active output re-drivers for long cable length
- Common DisplayPort or HDMI outputs
- Rack mounting
- RFC2326 Real Time Streaming Protocol (RTSP) capable
- Accelerated fisheye camera dewarping
- Powerful combined CPU processing with GPU acceleration

Key Benefits

- Cost effective video wall solution
- Simple installation wizard with Wisenet WAVE plugin optimizes the user experience
- Flexible solution for every user need
- Form factors that reduce the physical footprint saving rack mount space to a single appliance

	Six4K BB-VW-6UHD	BB-VW-1UHD
TECHNICAL SPECIFICATION		
Display Outputs	6	
Max. resolution per display	Ultra HD 3840x2160p	
GPU CODECS	H264 - H265 - MPEG2 - MJPEG - VC8	
CPU CODECS	http://www.ffmpeg.org/general.html#Video-Codecs	
Max. RTSP H264 at 30FPS decode examples	10 x UHD 36 x THD 60 x HD 72 x D1	
OPERATION		
Platform	Windows 10 Pro 64 Bit	
Disk	2.5" SSD	
CPU	Xeon E3 V5	
RAM	2 x 4GB DDR4	
Software features	Wisenet WAVE v4 accelerated plugin, TCP Event Server & SDK	
CONNECTIVITY		
Network	2 x 1Gb NIC	
USB	2 x USB 2.0 & 2 x USB 3.0	
Display	DisplayPort 1.2 & Active DP - HDMI Adapters	
PHYSICAL		
Form factor	2U rackmount	
Size (D x W x H)mm	220 x 482 x 88mm	
Max. weight	3 Kg	
Operation temperature	5°C to 40°C 41°F to 104°F	
Operating relative humidity (non-condensing)	20% to 80%	
POWER		
Power input	100-240v AC 50/60Hz	
Power consumption	250W Max - 180W Typical	
WARRANTY		
Standard	3 years	
Extended	Extended 24 month warranty pack available	

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Wisenet WAVE 4.1 Open video platform

Intuitive and easy to use

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

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

SUNAPI 2.0 INTEGRATION

Hanwha Techwin has launched Wisenet WAVE with full SUNAPI 2.0 integration for WISENET cameras and recorders.

Full SUNAPI 2.0 driver has been rigorously tested with Wisenet P, X, and Q series cameras resulting in:

- Video/Audio Streaming
- PTZ
- Event – MD, Alarm
- Edge recording

Hanwha Techwin specific features

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

- H.265
- WiseStream
- All triggering Events including sound classification, loitering and queue management
- Simple focus setting
- Multi directional camera support
- Hallway view
- HTTPS
- Time Settings
- Camera profile / Image configuration
- PTZ preset sync

An operating system to suit your needs.

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

Cloud	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 events 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 / Mac OSX		
Microsoft Edge			
Apple Safari			

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Wisenet SSM 2.1

Convenience for everyone

Wisenet SSM is video management software with features for both traditional and contemporary surveillance operations. It mainly consists of two parts; server and client software giving users a simple and easy to expand architecture. On the other hand, client software provides PC console for operators in security room and mobile viewer for guards on the move.

Key features

- **Single Core Server with Clustering**

  Wisenet SSM has one Core Server merging multiple basic servers such as MG, RS, SM, and HA. The Core Servers can also be clustered together providing a higher degree of reliability.

- **Free Trial License**

  Users are given a 45 days trial period before they can start activating their license. During the trial, full features are available for use including recording. After the trial, Wisenet SSM will generate a warning message and only limited features will be available.

- **New Client User Interface**

  With Wisenet SSM's user friendly interface, operators can playback video during live streaming and easily control playback with new timeline control.

- **Distributed Computing Architecture**

  Wisenet SSM's modular architecture allows the software to effectively manage any system, from low-end solutions to enterprise level installations.

- **Extended Scalability**

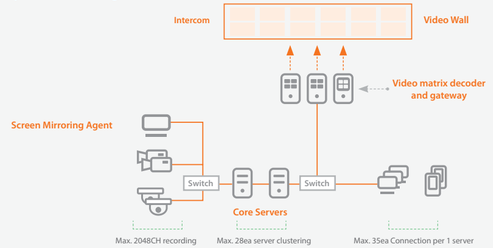
  Wisenet SSM is suitable for both small and larger installations, with numerous features for enterprise systems including Federation, Transaction Server and 3rd party integration.

Live Streaming

Display Events as Thumbnails

Location of Events for Google Map

System configuration



BASIC FEATURES		
General	Supported Device	Hanwha Techwin : Network camera, Encoder, NVR, DVR, Decoder, Controller Others : Network camera, Encoder through ONVIF
	Camera Protocol	SUNAPI, ONVIF (Profile S)
System Management	Centralised License Management	45 days free trial
	Server Clustering	Data sharing, Failure management
	System Dashboard	Real-time system status monitoring
	User Management	Configurable user group, LDAP supported Device access authority, Feature level authority
	Security	SSL, Database encryption Login lockdown, Multi-level user access authority
	Federation	Multi-tier domain federation, Max. 100 domains
Device Management	Centralised Device Configuration	Auto / Manual discovery, Device and add-on server registration
	Maintenance	Setup file backup / restore, Device firmware update
Event Management	Event Configuration	4 levels event priority, Configurable event colour External event registration
	Event Action	Rule based event and triggering action setup Instant viewer pop-up, Alert sound, E-mail notification
Site / Layout / Map Design	Multi-Layered Site Configuration	Flexible site design, Site access authority
	Layout & Pattern	User defined layout and tile pattern
	Map	2D image map
OPTIONAL FEATURES		
Recording Module	Max. Camera Per Server	Up to 128 channel
	Recording Performance	Up to 520Mbps(@ 4 HDD)
	Recording Mode	Manual, Continuous, Event, Schedule
	Pre / Post Event Recording	Pre : 10 ~ 60 seconds / Post : 1,200 secconds
	RAID	Hardware RAID controller required
	Etc.	ARB (Auto recovery backup) from camera edge storage, Recoding retention time, iSCSI support

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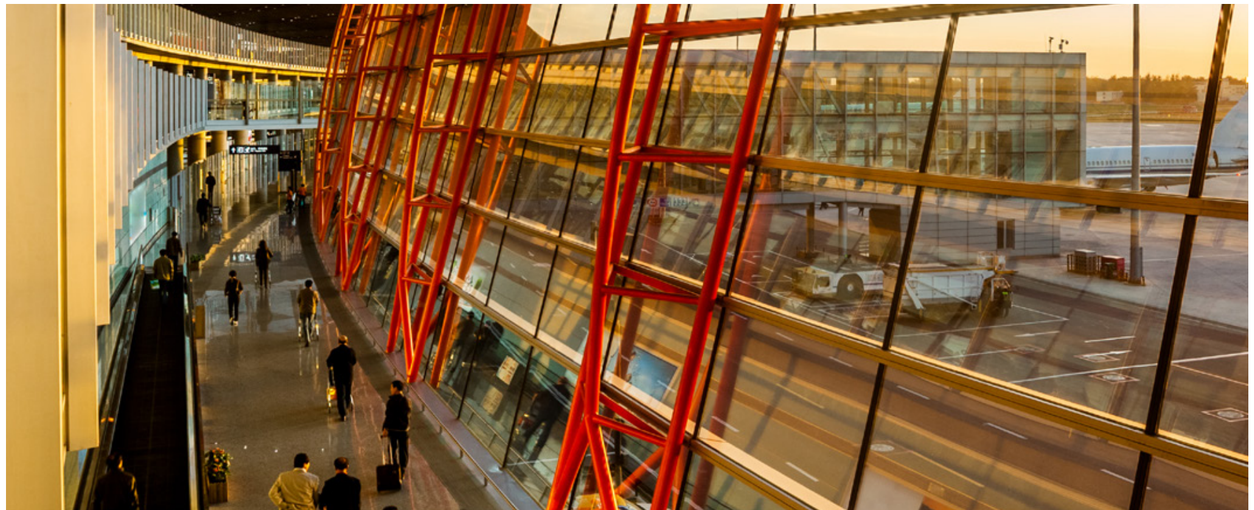
wisenet HD+ series

Experience the superior clarity

The Wisenet HD+ series supports 4MP and 2MP resolution with superior clarity down to the last detail. This feature not only provides a better performance than the existing analog system, but also supports the same resolution as the network system without experiencing any delays, delivering an image much clearer and more vivid than ever before.



ANALOG

HD+ series

Camera

	HCB-7000A QHD Box Camera	HCO-7070RA QHD IR Bullet Camera	HCO-7010RA/7020RA/7030RA QHD IR Bullet Camera	HCD-7070RA QHD IR Dome Camera	HCD-7010RA/7020RA/7030RA QHD IR Dome Camera	HCV-7070RA QHD IR Vandal Dome Camera
Imaging Device	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS
Resolution	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440
Min. Illumination	Colour : 0.16Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCO-7010R) 0.27Lux (F2.0) (HCO-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCD-7010R) 0.27Lux (F2.0) (HCD-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	2.8mm fixed (HCD-7010R) 4.0mm fixed (HCD-7020R) 6.0mm fixed (HCD-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-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCO-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCO-7030R)	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCD-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCD-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCD-7030R)	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° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)	20m (65.62ft) (HCD-7010R) 25m (82.02ft) (HCD-7020R) 30m (98.43ft) (HCD-7030R)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR
Motion detection	Support	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones
Alarm I/O	MD Output 1	MD Output 1	-	MD Output 1	-	MD Output 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron) RS-485 : Samsung T, Pelco D/P	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Certification	-	IP66, IK10	IP66, IK10	-	-	IP66, IK10
Power Consumption	12VDC & 24VAC : Max 3.6W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5.0W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5.0W	12VDC & 24VAC : Max 5.8W
Dimensions (WxHxD) / Weight	68.4 × 59.6 × 92.7mm (2.69" × 2.35" × 3.65") 186g (0.41 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02 lb)	Ø70.0 x 246.0 mm (Ø2.76" x 9.69") (Without sunshield) 670g (1.48 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71 lb)	Ø110.1 × 86.1mm (Ø4.33" x 3.39") 240g (0.53 lb)	Ø137 × 106.1mm (Ø5.39" × 4.18") 715g (1.58 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)

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	HCV-7010RA/7020RA/7030RA QHD IR Vandal Dome Camera	HCB-6001 1080p HD Box Camera	HCB-6000 1080p HD Box Camera	HCZ-6321 2M 32x AHD Zoom Camera	HCO-6080R 1080p HD IR Bullet Camera	HCO-6080 1080p Analog HD Bullet Camera
Imaging Device	1/3" 4MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2.38M CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Resolution	2560 x 1440	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Colour : 0.26Lux (F1.8) (HCV-7010R) 0.27Lux (F2.0) (HCV-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour: 0.2 Lux (1/30sec, F1.6) B/W: 0.01 Lux (1/30sec, F1.6)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	2.8mm fixed (HCV-7010R) 4.0mm fixed (HCV-7020R) 6.0mm fixed (HCV-7030R)	-	-	4.44~142.6mm(32x) zoom	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 107.48° / V : 59.67° / D : 122.01° (HCV-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCV-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCV-7030R)	-	-	H: 62.8°(Wide)~2.23°(Tele) / V: 36.80°(Wide)~1.26°(Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	-	-	-	-	-
IR Viewable Length	20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	-	-	-	30m (98.43ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	WDR (120dB)	WDR (120dB)	BLC, HLC, WDR, SSDR	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	2D DNR	SSNRIV	SSNRIV	SSNRIII	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	4 Zones	8 Zones	12 Zones	8 Zones	8 Zones
Alarm I/O	-	0 / 1, External D/N 1	0 / 1, External D/N 1	Output 1ea	MD Output 1	MD Output 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), RS-485 : Samsung T/E, Pelco D/P, Panasonic, Bosch, Honeywell, Vicon, GE, AD	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485 : Samsung T, Pelco D/P, Panasonic, Bosch , Honeywell, Vicon, GE, AD	ACP(AHD Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	'-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Certification	IP66, IK10	-	-	-	IP66, IK10	IP66, IK10
Power Consumption	12VDC : Max 5.0W	12VDC & 24VAC : Max 6W	12VDC & 24VAC : Max 3.5W	12VDC : Max 6W	12VDC & 24VAC : Max 6.0W	12VDC & 24VAC : Max 6.0W
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.12 lb)	73.1× 67.2 × 123.9mm (2.88" × 2.65" × 4.88") 287g (0.63 lb)	68.4 × 59.6 × 92.7mm (2.69" × 2.35" × 3.65") 186g (0.41 lb)	71.8 x 63.9 x 137.25mm (2.83" x 2.52" x 5.40") 451g(0.99 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 948g (2.09 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 948g (2.09 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	500m(5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)

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ANALOG

HD+ series

HCO-6070R
1080p HD IR Bullet Camera

HCO-6020R
1080p HD IR Bullet Camera

HCD-6080R
1080p HD IR Dome Camera

HCD-6070R
1080p HD IR Dome Camera

HCD-6020R
1080p HD IR Dome Camera

	HCO-6070R	HCO-6020R	HCD-6080R	HCD-6070R	HCD-6020R
Imaging Device	1/2.8" 2MP CMOS	1/2 .8" 2MP CMOS	1/2.8" 2MP CMOS	1/2 .8" 2MP CMOS	1/2.8" 2MP CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	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 : 0.11Lux (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) varifocal	4mm fixed (F1.6)	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 : 87.6° / V : 46.4° / D : 104.5°	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°
Pan / Tilt / Rotate	-		0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	-
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	8 Zones	8 Zones
Alarm I/O	MD Output 1	-	MD Output 1	MD Output 1	-
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) *Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) *Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66, IK10	IP66	-	-	-
Power Consumption	12VDC & 24VAC : Max 6.0W	12VDC : Max 4.2W	12VDC & 24VAC : Max 6.0W (HCD-6080R)	12VDC & 24VAC : Max 4.2W (HCD-6070R)	12VDC : Max 4.2W
Dimensions (WxHxD) / Weight	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02 lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.50") (Without sunshield) 285g (0.62 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 330g (0.73lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71lb)	Ø110 x 86mm (Ø4.33" x 3.39") 320g (0.71 lb)
Additional Features	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)

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HD+ series

HCD-6010
1080p HD Dome Camera

HCV-6070R
1080p HD IR Vandal Dome Camera

HCV-6080R
1080p HD IR Vandal Dome Camera

HCV-6080
1080p Analog HD Vandal-Resistant Dome Camera

HCP-6320HA/6320A
1080p HD 32x PTZ Camera

	HCD-6010	HCV-6070R	HCV-6080R	HCV-6080	HCP-6320HA/6320A
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2.38MP CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Colour : 0.27Lux (F2.0) B/W : 0.017 Lux (F2.0)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.2Lux (F1.6) B/W : 0.01Lux (F1.6)
Focal Length	2.8mm fixed (F2.0)	3.2 ~ 10mm (3.1x) varifocal	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal	4.44 ~ 142.6mm (Optical 32x)
Angular Field of View	H : 113.7° / V : 61.5° / D : 134.5 °	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32°(Tele) / V : 55.4°(Wide) ~ 18°(Tele) / D : 128.4°(Wide) ~ 36.6°(Tele)	H : 62.8° (Wide) ~ 2.23° (Tele) / V : 36.8° (Wide) ~ 1.26° (Tele)
Pan / Tilt / Rotate	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	360° Endless / 210° (-15° ~ 195°) / -
IR Viewable Length	-	30m (98.43ft)	30m (98.43ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	Off / User BLC / HLC / WDR	WDR (120dB)
Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIII
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	8 Zones	32 Zones
Alarm I/O	-	MD Output 1	MD Output 1	MD Output 1	4 / 2 (Relay)
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), RS-485 : Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-50°C ~ +55°C (-58°F ~ +131°F) (HCP-6320HA), -10°C ~ +55°C (+14°F ~ +131°F) (HCP-6320A)
Certification	-	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10 (HCP-6320HA), IK10 (With SHP-3701H) (HCP-6320A)
Power Consumption	12VDC : Max 3.5W	12VDC & 24VAC : Max 4.2W	12VDC & 24VAC : Max 4.2W	12VDC & 24VAC : Max 4.2W	24VAC : Max 24.0W / 65.0W - Heater off / on (HCP-6320HA) 24VAC : Max 20.0W (HCP-6320A)
Dimensions (WxHxD) / Weight	Ø110 x 86mm (Ø4.33" x 3.39") 225g (0.49 lb)	Ø137 × 106.1mm (Ø5.39" × 4.18") 725g (1.60lb) 715g (1.58lb)	Ø137 × 106.1mm (Ø5.39" × 4.18") 725g (1.60lb) 715g (1.58lb)	Ø137 × 106.1mm (Ø5.39" × 4.18") 725g (1.60lb) 715g (1.58lb)	Ø220.0 x 293.6mm (Ø8.66" x 11.56") 3.3Kg (7.28 lb) (HCP-6320HA), Ø152.0 x 218.0mm (Ø5.98" x 8.58") 2.2Kg (4.85 lb) (HCP-6320A)
Additional Features	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Defog

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NETWORK
ANALOG
PERIPHERAL
ACCESSORY

WISENET Pentabrid DVR

Making the transfer from Analogue to IP simple

The new Wisenet Pentabrid Hybrid DVRs are designed to enable a quick, seamless and cost-effective migration to an IP network based video surveillance solution from analogue. Any combination of analogue or IP cameras up to 4K ultra high definition can be connected to the new Wisenet Pentabrid Hybrid 4, 8 and 16 channel DVRs, with a simple onboard software switch enabling users to convert any channel from analogue to IP, when required.

HRX-1620 | HRX-820 | HRX-420
HRX-1621 | HRX-821 | HRX-421

- 16ch / 8ch / 4ch Pentabrid DVRs
- 5-in-1 Embedded DVRs
- AHD/HDTVI/HDCVI/CVBS + IP input
- Up to 8MP resolution
- H.265, H.264, MJPEG codec support
- HDMI 4K Monitoring, Dual monitor
- P2P service (QR code connect)
- Wisenet Wave Support
- Wisenet SSM Support

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Combining Analogue and IP

Security integrators and installers are having to adapt to project and customer demands as well as having to manage multiple technology solutions. Some customers request to keep their old existing analogue cameras but they want to install new network cameras with high-definition video technologies. That's when pentabrid DVR will be needed. Pentabrid DVR offers the flexibility to meet the demands of certain projects or customers.

Up to 4K resolution monitoring (HDMI) and dual monitor

Wisenet Pentabrid DVRs provide high resolution up to 4K. It also offers various layouts including dual monitor using HDMI and VGA so that users can select and view desired areas.

* Max. Full HD with HDMI cable in case of dual monitor. * HRX-421 / 420 doesn't support dual monitor.

Dual recording for efficient monitoring

Images are compressed and stored in both low and high resolutions simultaneously to enable multi-channel monitoring depending on the circumstances. This is especially effective in mobile and remote monitoring and it helps speeding up the search time.

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ANALOG

HD+ series

DVR

HRX-1632
16CH Pentabrid DVR

HRX-1621
16CH 8MP Pentabrid Recorder

HRX-1620
16CH 8MP Pentabrid Recorder

HRX-835
8CH 8MP Pentabrid DVR

HRX-821
8CH 8MP Pentabrid Recorder

Video Inputs Signal		Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera
Video Inputs Channel		Analog 16CH, N/W Camera 2CH (up to 18CH)	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 8CH, N/W Camera 2CH (up to 10CH)
Live (NTSC / PAL)		480fps / 400fps	480fps / 400fps	480fps / 400fps	240fps / 200fps	240fps / 200fps
Recording Compression		H.265, H.264, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.265, H.264, MJPEG	H.264, H.265, MJPEG
Max. Recording		4M (4M Half 1280*1440) 15/12fps, 2M 15/12fps, 720p 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 15/12fps, 5MP 20/12fps, 4MP 30/25fps, 2MP 30/25fps ,1MP 30/25fps NTSC/PAL * per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH
Internal Storage		Up to 4 SATA HDDs	Up to 8 SATA HDDs	Up to 2 SATA HDDs	Up to 4 SATA HDDs	Up to 4 SATA HDDs
Audio I/O		16 / 1	16 / 1	4 / 1	8 / 1	8 / 1
Alarm I/O		16 / 4	16 / 4	16 / 4	8 / 4	8 / 4
Monitors	HDMI, VGA	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)
	Spot Composite	1 BNC	1 BNC	1 BNC	1 BNC	1 BNC
USB		2 ports	2 ports	2 ports	2 ports	2 ports
e-SATA		-	-	-	-	-
Network	Remote Users	Search 3 , Live Unicast 10, Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 , Live Unicast 10, Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20
	Transmission	Dual Stream	Dual Stream	Dual Stream	Dual Stream	Dual Stream
	Monitoring	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, Webviewer, Smart Viewer, Wisenet mobile	SSM, WebViewer, SmartViewer, Mobile Viewer
Coax Protocol		Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)
Serial Interface		RS-485	RS-485	RS-485	RS-485	RS-485

HRX-820
8CH 8MP Pentabrid Recorder

HRX-434
4CH Pentabrid DVR

HRX-435
4CH Pentabrid DVR

HRX-421
4CH 8MP Pentabrid Recorder

HRX-420
4CH 8MP Pentabrid Recorder

Video Inputs Signal		Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera
Video Inputs Channel		Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 4CH, N/W Camera 2CH (up to 6CH)	Analog 4CH, N/W Camera 2CH (up to 6CH)	Analog 4CH, N/W Camera 2CH (up to 6CH)	Analog 4CH, N/W Camera 2CH (up to 6CH)
Live (NTSC / PAL)		240fps / 200fps	120fps / 100fps	120fps / 100fps	120fps / 100fps	120fps / 100fps
Recording Compression		H.264, H.265, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Max. Recording		8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps, 720p 30/25fps NTSC/PAL *per CH	8MP 15/12fps, 5MP 20/12fps, 4MP 30/25fps, 2MP 30/25fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH
Internal Storage		Up to 2 SATA HDDs	Up to 2 SATA HDDs	Up to 1 SATA HDDs	Up to 2 SATA HDDs	Up to 1 SATA HDDs
Audio I/O		4 / 1	4 / 1	4 / 1	4 / 1	1 / 1
Alarm I/O		8 / 4	4 / 2	4 / 2	4 / 2	4 / 1
Monitors	HDMI, VGA	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA	1 HDMI, 1 VGA	1 HDMI, 1 VGA	1 HDMI, 1 VGA
	Spot Composite	1 BNC	1 BNC	1 BNC	1 BNC	1 BNC
USB		2 ports	2 ports	2 ports	2 ports	2 ports
e-SATA		-	-	-	-	-
Network	Remote Users	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 , Live Unicast 10, Multicast 20	Search 3 , Live Unicast 10, Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20
	Transmission	Dual Stream	Dual Stream	Dual Stream	Dual Stream	Dual Stream
	Monitoring	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, Webviewer, Smart Viewer, Wisenet mobile	SSM, Webviewer, Smart Viewer, Wisenet mobile	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer
Coax Protocol		Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)
Serial Interface		RS-485	RS-485	RS-485	RS-485	RS-485

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PERIPHERAL

LED Monitor

SMT-3230PV
32" PVM - built-in 2MP camera

SMT-2730PV
27" PVM - built-in 2MP camera

SMT-1030PV
10" PVM - built-in 2MP camera

Screen Size	32"	27"	10.1"
Resolution (pixels HxV)	1920 x 1080	1920 x 1080	1024 x 600
DVI / HDMI	1 HDMI In	1 HDMI In	-
Contrast Ratio	4000 : 1	1000 : 1	500 : 1
Aspect Ratio	16 : 9	16 : 9	16 : 9
Response Time	8ms	14ms	20ms
Brightness	400cd/m²	300cd/m²	500cd/m²
Power	DC12V 5.1A	DC12V 2.5A	DC12V 1A, PoE 48V 0.28A

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PERIPHERAL

LED Monitor

	SMT-4343 43" LED Monitor	SMT-3233 32" LED Monitor	SMT-2233 22" LED Monitor	SMT-1935 19" LED Monitor
Screen Size	42.5"	32"	22"	19"
Resolution (pixels HxV)	3840x2160	1,920 x 1,080	1,920 x 1,080	1,280 x 1,024
Video In/Out	-	1	2 / 2	2 / 2
VGA	-	1	1	1
DVI / HDMI	0/1	1 / 1	0 / 1	0 / 1
USB	-	-	-	-
Audio In (Stereo)	-	1	2	2
Contrast Ratio	1,000 : 1	1,200 : 1	1,000 : 1	1,000 : 1
Aspect Ratio	16 : 9	16 : 9	16 : 9	4 : 3
Response Time	8ms	8ms	5ms	5ms
Brightness	300 cd/m	350cd/m^2	250cd/m^2	250cd/m^2
Tempered Glass Screen	-	-	Yes	Yes
Picture In Picture	-	-	-	-
Built-in Speakers	Yes	Yes	Yes	Yes
Stand	Optional	Optional	Standard	Standard
Power	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC
Additional Features	Remote Controller	Remote Controller	-	-

Controller

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

Lens

Lens Description	Model	Image	Mount	Image Format	Resolution	Focal Length	Back Focal Length	Zoom Ratio	F. No	Angle of View	Operation			Dimensions W x H x D (mm / inch)	Weight (g / lb)
											Iris	Focus	Zoom		
Varifocal Lens	SLA-M8550D		CS	1 / 2.8"	3Megapixel	8.5 ~ 50mm (0.33" ~ 1.97")	9.4 ~ 10.7mm (0.37" ~ 0.42")	5.9	F1.6	42.3° ~ 7.5°	DC	Manual	Manual	46 x 60 x 58.2mm (1.81" x 2.36" x 2.29")	80g (0.17 lb)
	SLA-M2890DN					2.8 ~ 9mm (0.11" ~ 0.35")	7.5 ~ 15.9mm (0.30" ~ 0.63")	3.2	1.2	134.2° ~ 42.7°				45.0 x 51.5 x 54.3mm (1.77" x 2.03" x 2.14")	84.0g (0.19 lb)
	SLA-M2890PN										P-Iris				82.1g (0.18 lb)

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ACCESSORY

SHP-1680F/1680FW

In-Ceiling Housing for PTZ & Dome

- For indoor applications
- Polycarbonate
- Can be used with XNP-6120H XNV-6120/6120R/6085 XND-6085/6085V

SHP-3701H

Outdoor Housing for PTZ Dome

- For outdoor applications
- Weatherproof rated to IP66
- Aluminium + Polycarbonate
- IK10 vandal resistant
- Can be used with HCP-6320A/6320/6230 XNP-6320, QNP-6230

SHP-3701F/3701FB

In-Ceiling Housing for Dome

- For indoor applications
- Polycarbonate
- Can be used with HCP-6321/6321A/6320/6231 XNP-6320 QNP-6320

SHD-1198FW

In-ceiliing Housing for Dome

- For Indoor applications
- Polycarbonate
- Can be used with
- QND-8080R/7080R/6082R/6072R, LND-6072R, HCD-7080R/7070RA/6080R/6070R, SCD-6085R

SHD-1408FW

In-ceiling Housing for Dome

- For Indoor applications
- Polycarbonate
- Can be used with
- XND-8080R/6080R/ L6080R, QNV-8080R/7080R/6082R/6072R, HCV-7080R/7070R

SHD-3000F1

In-Ceiling Housing for PTZ Dome

- For indoor applications
- Polycarbonate
- Can be used with PNV-9080R XNV-8080R/6080R/6080/L6080/L6080R

SHD-3000F2/3000FW2

In Ceiling Housing for Dome

- For indoor applications
- Polycanonate
- Can be used with QND-6070R/6082R/7080R HCD-6070R/7070R/6080R/7080R (SHD-3000F2) QND-8080R, QND-6082R (SHD-3000FW2)

SHD-3000F3/3000FW3

In Ceiling Housing for Dome

- For indoor applications
- Polycanonate
- Can be used with QNV-6070R/6082R/7080R/8080R HCV-7070R/6080R/6070R (SHD-3000F3) QNV-8080R, QNV-6082R (SHD-3000FW3)

SHD-3000F4

In Ceiling Housing for Dome

- For indoor applications
- Polycanonate
- Can be used with PND-9080R XND-6080/6080R/6080RV/6080V/ L6080R/L6080RV/L6080V/ 8080R/8080RV

SHD-3000F5

In Ceiling Housing for Dome

- For indoor applications
- Polycanonate
- Can be used with PNM-9000VQ

SHF-1500F

In-Ceiling Housing for PTZ & Dome

- For indoor applications
- Polycarbonate
- Can be used with PNF-9010R/9010RV/9010RVM XNF-8010R/8010RV/8010RVM

SBP-301HM2/301HMW2

Hanging Mount

- Aluminum
- Can be used with QNV-7080R/6070R (SBP-301HM2) LNV-6070R QNV-6082R/8080R (SBP-301HMW2)

SBP-301HM3

Hanging Mount

- Aluminum
- Can be used with HCP-6320A/6320/6230 XNP-6320 QNP-6230

SBP-301HM4

Hanging Mount

- Aluminum
- Can be used with QND-6070R/7080R

SBP-300HM5/300HMW5

Hanging Mount

- Aluminum
- Can be used with XNF-8010R/8010RV/8010RVM QNE-6080RV/7080RV (SBP-300HM5) QNE-6080RVW/7080RVW XNF-8010RVW/8010RW (SBP-300HMW5)

SBP-300HM6

Hanging Mount

- Aluminum
- Can be used with PNV-9080R XNV-8080R/6120R/6120/ 6080R/6080/L6080R/L6080 XND-6085V/6085 PNM-7000VD

SBP-300HM7/300HMW7

Hanging Mount

- Aluminum
- Can be used with XNV-6011 XND-8040R/8030R/8020R/6020R/6010 QND-7030R/7020R/7010R/6030R/6020R/ 6010R HCD-7010R/7020R/7030R/6020R/6010 SBP-300WM/300WM1/300CM/300LM (SBP-300HM7) XNV-6011W QND-8010R/8020R/8030R/6012R/ 6022R/6032R SBP-300WM/300WMW1/300CMW/ 300LMW (SBP-300HMW7)

SBP-300HM8/300HMW8

Hanging Mount

- Aluminum
- Can be used with PND-9080R XND-8080RV/8080R/6080V/6080RV/ 6080R/6080/L6080R/L6080RV/ L6080V

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ACCESSORY

SBP-122HM/122HMW

Hanging Mount

- Aluminum
- Can be used with
  XNV-6010/6020R/8020R/8030R/8040R
  QNV-6010R/6020R/6030R/6012R/6022R/
  6032R/7010R/7020R/7030R/8010R/
  8020R/8030R
  HCV-7010R/7020R/7030R
  QND-6070R/6082R/7080R/8080R
  HCD-6070R/7070R/7080R/6080R
  (SBP-122HM)
  QND-8080R/6082R
  QNV-8010R/8020R/8030R/6012R/6022R/
  6032R (SBP-122HMW)

SBP-099HMW

Hanging Mount

- Aluminum
- Can be used with
  QND-8021/8011/6021/6011
  QNF-9010/8010

SBP-156HMW

Hanging Mount

- Aluminum, White
- Can be used with
  XNP-9300RW/9250R/9250/8300RW/
  8250R/8250/6400RW/6400R/6400

SBP-168HM

Hanging Mount

- Aluminum
- Can be used with
  XNP-6120H

SBP-201HM/201HMW

Hanging Mount

- Aluminum
- Can be used with
  PNM-9020V
  HCM-9020VQ
  (SBP-201HM)
  PNM-9000VD (SBP-201HMW)

SBP-317HM/317HMW

Hanging Mount

- Aluminum
- Can be used with
  PNM-9020V
  PNM-9080VQ/9081VQ
  (SBP-317HM)
  PNM-9084RQZ/9085RQZ
  (SBP-317HMW)

SBP-329HM

Hanging Mount

- Aluminum
- Can be used with
  PNM-9020V
  PNM-9080VQ/9081VQ

SBP-276HM/276HMW

Hanging Mount

- Aluminum
- Can be used with
  PNM-9020V
  PNM-9000VQ/9030V
  (SBP-276HM)
  PNM-9084QZ
  (SBP-276HMW)

SBP-167HMW/187HMW

Hanging Mount

- Aluminum, White
- Can be used with
  XND-8081VZ/6081VZ/8081RV/6081RV
  /6081V
  (SBP-167HMW)
  XNV-8081Z/6081Z/6081R/6081
  (SBP-187HMW)

SBP-302HF/303HF

Built-in SFP Install Base for PTZ Cameras

- Aluminum
- LC SFP port type
- 100Mbps Ethernet speed (Default speed : 1000Mbps)
- IEEE 802.3u, IEEE 802.3z Support
- Audio input/output, 3.5mm type
- 24V AC, IP66, IK10, -50°C to +55°C
- Can be used with
  PNP-9200RH/XNP-6370RH (SBP-302HF)
  QNP-6230H/XNP-6250RH/6320H/
  6320RH/6371RH (SBP-303HF)

SBP-300TM1

Tilt Mount

- Poly Carbonate
- Can be used with
  PNF-9010R/9010RV/9010RVM
  XNF-8010R/8010RV/8010RVM
  QNE-6080RV/7080RV

SBP-160TM

Tilt Mount

- Aluminum
- Can be used with
  PNV-9080R
  XNV-8080R/6120R/6120/608
  0R/6085/6080/
  L6080/L6080R
  XND-6085V/6085

SBP-300CM/300LM

Ceiling Mount / Parapet Mount

- Aluminum + SECC
- Can be used with
  SBP-300HM6/300HM7/300HM8/
  122HM/201HM/317HM/329HM/
  276HM/168HM
  PH1/PH2/PH3/PH4/PH5/PH6 (SBP-300CM)
  SBP-300HM6/300HM7/300HM8/
  122HM/201HM/317HM/329HM/
  276HM/168HM/300B/300PM/300KM
  PH1/PH2/PH3/PH4/PH5/PH6
  (SBP-300LM)

SBP-300CMW/300LMW

Wall Mount /Parpapet Mount

- Aluminum, White
- Can be used with
  SBP-300HMW7/300HMW5/
  301HMW2/122HMW/
  167HM/187HM/201HMW

SBP-156CMW/156LMW

Wall Mount /Parpapet Mount

- Aluminum, White
- Can be used with
  XNP-9300RW/9250R/9250/8300RW/
  8250R/8250/6400RW/6400R/6400

SBP-300WM1/300WMW1

Wall Mount

- Aluminum + SECC
- Can be used with
  SBP-300HM6/300HM7/300HM8/
  122HM/201HM/317HM/329HM/
  276HM/168HM/300B/300PM/
  300KM (SBP-300WM1)
  SBP-300HMW7/300HMW5/301HMW2/
  122HMW/167HMW/187HMW/
  201HMW (SBP-300WMW1)
  PH1/PH2/PH3/PH4/PH5/PH6

SBP-300WM/300WMW

Wall Mount

- Aluminum + SECC
- Can be used with
  SBP- 300HM6/300HM7/300HM8/
  122HM/201HM/317HM/329HM/
  276HM/168HM/300B/300PM/
  300KM
  PH1/PH2/PH3/PH4/PH5/PH6
  (SBP-300WM)

SBP-156WMW

Wall Mount

- Aluminum, White
- Can be used with
  XNP-9300RW/9250R/9250/8300RW/
  8250R/8250/6400RW/6400R/6400

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SBP-137WM/137WM1

Wall Mount

- Alluminum and Poly Carbonate
- Can be used with
  QNV-7080R/7030R/7020R/7010R/6080R/
  6070R/6030R/6020R/6010R
  HCV-7070R/6080R/6070R/7010R/7020R/7030R
  XNV-8040R/8030R/8020R/6020R/6010

SBP-137WMW/137WMW1

Wall Mount

- Aluminum/Plastic, White
- Can be used with
  QNV-6012R/6022R/6032R/6082R/8010R/
  8020R/8030R/8080R

SBP-120WM/120WMW

Wall Mount

- Plastic
- Can be used with
  QND-6070R/7080R/7030R/7020R/
  7010R/6030R/6020R/6010R
  HCD-6070R/7070R/7080R/6080R/7010R/7020R/
  7030R/ 6020R/6010
  XND-8040R/8030R/8020R/6020R/6010
  XNV-6011
  (SBP-120WM)
  QND-6011/6012R/6021/6022R/6032R/6082R/
  8010R/8011/8020R/8021/8030R/8080R
  XND-L6020R
  (SBP-120WMW)

SBP-125WMW

Wall Mount

- Aluminum/Plastic, White
- Can be used with
  QNE-8011R/8021R

SBP-390WM1/390WM2/390WMW2

Wall Mount

- Aluminum
- Can be used with
  SBP-317HM/329HM/276HM/300HM6/201HM
  (SBP-390WM1)
  SBP-317HM/329HM/276HM/300HM6/201HM/
  300PM/300KM (SBP-390WM2/390WMW2)

SBU-500WM

Positioning System Mount

- Can be used with:TNU-6320

SBP-300PM/300PMW

Pole Mount / Corner Mount Base

- SECC
- Can be used with
  SBP-300B/300WM1/300WM/300LM (SBP-300PM)
  SBP-300WMW1 (SBP-300PMW)

SBP-302PM

Pole Mount

- SECC
- Can be used with
  HCO-6070R/6080R/7010R/7020R/7030R/7070R
  PNO-9080R
  QNO-6010R/6012R/6020R/6022R/6030R/6032R/
  6070R/6082R/7010R/7020R/7030R/7080R/
  8010R/8020R/8030R/8080R
  XNO-6010R/6020R/6080R/6085R/6120R/8020R/
  8030R/8040R/8080R/L6080R

SBP-303PM

Pole Mount

- SECC, White
- Can be used with
  TNO-4030T/4030TR/4040T/4040TR/
  4050T/4050TR (SBP-303PM)

SBP-300KM/300KMW

Pole Mount / Corner Mount Base

- SECC
- Can be used with
  SBP-300WM1/300WM
  (SBP-300KM)
  SBP-300WMW1
  (SBP-300KMW)

SBP-156KMW

Corner Mount

- Aluminum, White
- Can be used with
  XNP-9300RW/9250R/9250/8300RW/8250R/
  8250/6400RW/6400R/6400

SBP-300B/300NB

Wall Mount Base / Installation Box

- Aluminum + SECC
- Can be used with
  SBP-300WM1/300WM/
  300WMS1/300WMS
  SBU-500WM
  (SBP-300B)
- Steel
- Can be used with
  SBP-300WM/300WM1
  (SBP-300NB)

SBP-300BW/300NBW

Wall Mount Base / Installation Box

- Aluminum, White
- Can be used with
  SBP-300WMW1 (SBP-300BW)
- Aluminum, Steel, Silicon, White
- Can be used with
  SBP-300WMW1 (SBP-300NBW)

SBV-160WC

Weather Cap

- Alluminum and Poly Carbonate
- Can be used with
  XNV-8080R/6120R/6120/6085/
  6080R/6080/L6080/L6080R
  XND-6085V/6085, PNV-9080R

SBV-120WC/120WCW

Weather Cap

- Alluminum and Poly Carbonate
- Can be used with
  XNV-6011/6020R/8020R/8030R/8040R
  QNV-6010R/6020R/6030R/7010R/7020R/
  7030R
  HCV-7010R/7020R/7030R

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ACCESSORY

SBV-116B / SBF-100B1

Back Box

- Aluminum
- Can be used with
  XNV-6011 (SBV-116B)
  XNF-8010R/8010RV/8010RVM
  QNE-6080RV/7080RV (SBF-100B1)

SBV-136B/136BW

Back Box

- Aluminum
- Can be used with
  XNP-6040H, HCV-7070R/6080R/6070R
  QNV-6070R/6080R/7080R

SBV-120GW/125BW/158G/158GW

Back Box

- Aluminum, White
- Can be used with
  QNV-6012R/6022R/6032R/8010R/8020R/8030R (SBV-120GW)
  QNE-8011R/8021R (SBV-125BW)
  PNV-9080R
  XNV-8080R/6120R/6120/6080R/6080/L8080R/L6080/L6080R/6085
  XND-6085V/6085, PNM-7000VD
  (SBV-158G/158GW)

SBO-126B/100B1

Back Box

- Aluminum
- Can be used with
  XNO-L6080R
  QNO-8080R (SBO-126B)
  QNO-6012R/6022R/6032R/6070R/6082R/8010R/8020R/8030R
  HCO-7070R/7010R/7020R/7030R/6080R/6070R (SBO-100B1)

SBP-300HMS6

Wall Mount

- Stainless steel (SUS316L)
- Can be used with
  XNV-8080RS/6120RS/6080RS

SBP-300WMS1/300WMS

Wall Mount

- Stainless steel (SUS316L)
- Can be used with
  XNP-6320HS
  SBP-300HMS6

SBP-300PMS/300KMS

Corner Mount Base / Pole Mount

- Stainless steel (SUS316L)
- Can be used with
  SBP-300WMS1/300WMS (SBP-300PMS)
  SBP-300WM51/300WMS (SBP-300KMS)

SHB-9000H

Fixed Housing

- Aluminum construction
- Built-in fan & heater
- IP66
- Can be used with
  TNB-9000

SHB-4300H/4300H1/4301H2/4301HP

Fixed Housing

- Aluminum diecasting construction
- Fully cable managed bracket
- Built-in fan & heater
- Support three cable glands, IP66

SHB-4301H2/4301HP

Fixed Housing

- Aluminum diecasting construction
- Fully cable managed bracket
- Built-in fan, defroster & heater

SHB-4200/4200H

Fixed Housing

- Support two cable glands
- Built-in fan & heater : SHB-4200H

SBB-900

Fixed Mount

- Bracket for SHB-9000H

STB-400/4150V

Fixed Mount

- Bracket for STH-500/200
- Aluminum and Steel material (STB-400)
- Bracket for box cameras
- Aluminum and Steel material (STB-4150V)

SPI-50

IR Illuminator

- Compatible IR Illuminator for TNU-6320
- Wavelength 850nm
- Angle 25°

SBC-160B/180B

Skin Cover

- Plastic, Black
- Can be used with
  XND-6081RV/6081V/6081VZ/8081RV/8081VZ (SBC-160B)
  XNV-6081/6081R/6081Z/8081Z (SBC-180B)

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SPB-IND6

Smoked Dome Cover

- Poly Carbonate
- Can be used with
  HCD-6070R/7070R/7080R/6080R

SPB-IND11/IND81/IND81V

Smoked Dome Cover

- Poly Carbonate
- Can be used with
  XND-6010/6020/8020R/8030R/8040R (SPB-IND11)
  XND-6080/6080R/L6080R/8080R
  PND-9080R (SPB-IND81)
  XND-6080V/6080RV/L6080RV/L6080V/8080RV (SPB-IND81V)

SPB-IND12/IND72/INW72

Smoked Dome Cover

- Poly Carbonate
- Can be used with
  HCD-6020R/7010R/7020R/7030R
  QND-6010R/6012R/6020R/6022R/6030R/6032R/7010R/7020R/7030R/8010R/8020R/8030R (SPB-IND12)
  QND-6070R/6082R/7080R/8080R (SPB-IND72)

SPB-IND83/IND83V

Smoked Dome Cover

- Poly Carbonate
- Can be used with
  XND-6085 (SPB-IND83)
  XND-6085V (SPB-IND83V)

SPB-INW13/INW73

Smoked Dome Cover

- Poly Carbonate
- Can be used with
- QND-8010R/8020R/8030R (SPB-INW13)
  8080R (SPB-INW73)

SPB-IND85W

Smoked Dome Cover

- Poly Carbonate
- Can be used with
  XND-8081REV/8081RV/8081VZ/6081REV/6081RV/6081V/6081VZ
  PND-A9081RV

SPG-IND12B

Black Dome cover

- Poly Carbonate
- Can be used with:
  QND-6010R/6020R/6030R/7010R/7020R/7030R

SPG-IND16B

Black Dome cover

- Poly Carbonate
- Can be used with:
- QND-6011/6021/8011/8021

SPG-IND72B

Black Dome cover

- Poly Carbonate
- Can be used with
  QND-6070R, QND-7080R

SPB-VAN3/VAN4

Smoked Dome Cover

- Aluminium + Poly Carbonate
- Can be used with
  PNV-9080R
  XNV-6080/6080R/8080R/L6080/L6080R (SPB-VAN3)
  HCV-6070R/6080R/7070R
  QNV-6070R/6082R/7080R/7081R/8080R (SPB-IND83V)

SPB-VAN11/VAN71/VAN81

Smoked Dome Cover

- Aluminium + Poly Carbonate
- Can be used with
  XNV-6010/6020R/8020R/8030R/8040R (SPB-VAN11)
  XNV-6120/6120R (SPB-VAN71)
  XNV-6085 (SPB-VAN81)

SPB-VAN12/VAN72

Smoked Dome Cover

- Aluminium + Poly Carbonate
- Can be used with
  HCV-7010R/7020R/7030R
  QNV-6010R/6012R/6020R/6022R/6030R/6032R/7010R/7020R/7030R/8010R/8020R/8030R (SPB-VAN12)
  HCV-6070R/6080R/7070R
  QNV-6070R/6082R/7080R/7081R/8080R (SPB-VAN72)

SPB-VAW12/VAW72

Smoked Dome Cover

- Aluminium + Poly Carbonate
- Can be used with
  LNV-6012R/6022R/6032R
  QNV-6012R/6022R/6032R/8010R/8020R/8030R (SPB-VAW12)
  LNV-6070/6072R
  QNV-6072R/6082R/8080R(SPB-VAW72)

SPB-VAN85W

Smoked Dome Cover

- Poly Carbonate
- Can be used with
  XNV-8081RE/8081R/8081Z/6081RE/6081R/6081/6081Z
  PNV-A9081R

SPB-FCD85W

Smoked Dome Cover

- Poly Carbonate
- Can be used with
  XND-8081RF/8081FZ/6081RF/6081F/6081FZ
  PND-A9081RF

SPB-PTZ71

Smoked Dome Cover

- Poly Carbonate + Poly Carbonate
- Can be used with
  XNP-6040H

SPB-PTZ73

Smoked Dome Cover

- Poly Carbonate + Poly Carbonate
- Can be used with
  XNP-6120H

SPB-PTZ6

Smoked dome cover

- Poly Carbonate
- Can be used with
  XNP-6320/ QNP-6230
  SNP-6321/6320/5430/5321
  SNP-L6233/L5233
  SCP-3371/2373/2371/2273/2271

SPB-PTZ7

Smoked dome cover

- Poly Carbonate
- Can be used with
  XNP-6320H/
  QNP-6230H
  SCP-3371H/2373H/2371H/2273H/2271H/6321H/6320H/5430H/5321H/L6233H/L5233H

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CAMERA TYPE SUMMARY

PTZ Cameras

Type	Outdoor PTZ				Indoor PTZ
Shape	PH4	PH6	PH7	PH8	P4
Colour	Ivory				
Model	HCP-6230H/6320H/6320HA XNP-6320H QNP-6230H	PNP-9200RH XNP-6370RH/6371RH/6250RH/6320RH QNP-6230RH	XNP-6120H	XNP-6040H	HCP-6230/6320/6320A XNP-6320 QNP-6230

White Cameras

Type	Vandal-Resistant				Indoor Dome			Fisheye	Flateye		Multi-sensor		
Shape	VW5	VW6	VW7	VW8	DW4	DW5	DW6	FW1	FEW1	FEW2	MW1	MW2	MW3
Colour	White												
Model	QNV-6082R/8080R	QNV-6012R/6022R/6032R/8010R/8020R/8030R	PND-A9081RV A6081RV XND-6081REV/6081RV/6081V/6081VZ/8081REV/8081RV/8081VZ/8082RV/9082RV XNF-9010RV/9010RVM	PNV-A9081R A6081R XNV-6081/6081R/6081RE/6081Z/8081R/8081RE/8081Z/8082R/9082R	QND-6082R 8080R	QND-6012R/6022R/6032R/8010R/8020R/8030R	QND-6011/6021/8011/8021	QNF-8010/9010	QNE-7080RVW/6080RVW	QNE-8011R/8021R	PNM-9000VD/7002VD	PNM-9084QZ/8082VT/9002VQ	PNM-9084RQZ 9085RQZ

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Dome Cameras

Type	Vandal-Resistant				Indoor Dome			
Shape	V3	V4	V5	V6	D4	D5	D6	D7
Colour	Ivory							
Model	PNV-9080R XNV-8080R/6120R/6120/6085/6085R/6080R/6080/L6080/L6080R	SNV-6013 XNV-6011	QNV-6070R/6080R/7080R HCV-7070R/6080R/6070R	XNV-8040R/8030R/8020R/6020R/6010 QNV-7030R/7020R/7010R/6030R/6020R/6010R HCV-7010R/7020R/7030R	QND-6070R/6080R/7080R HCD-6070R/7070R/7080R/6080R	XND-8040R/8030R/8020R/6020R/6010/L6020R QND-7030R/7020R/7010R/6030R/6020R/6010R HCD-7010R/7020R/7030R/6020R/6020R/6010	PND-9080R XND-8080RV/8080R/6080V/6080RV/6080R/6080/L6080R/L6080RV/L6080V	XND-6085V/6085

Fisheye / Multi-Sensor Cameras

Type	Fisheye		Flateye	Multi-sensor		
Shape	F3	FV3	FE1	M1	M5	M6
Colour	Ivory					
Model	XNF-8010R PNF-9010R	PNF-9010RV/9010RVM XNF-8010RV/8010RVM	QNE-7080RV/6080RV	PNM-9020V HCM-9020VQ	PNM-9030V	PNM-9320VP 9322VQP

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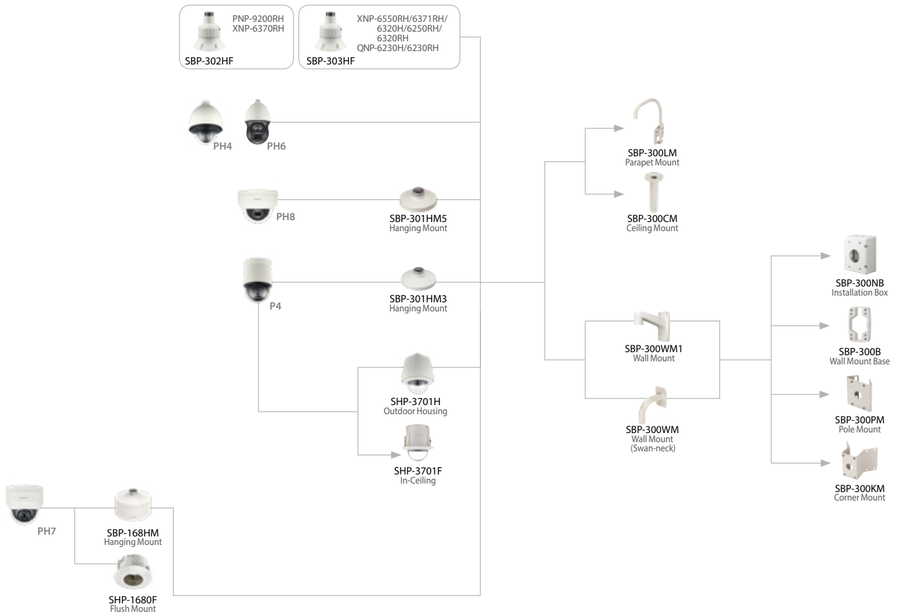
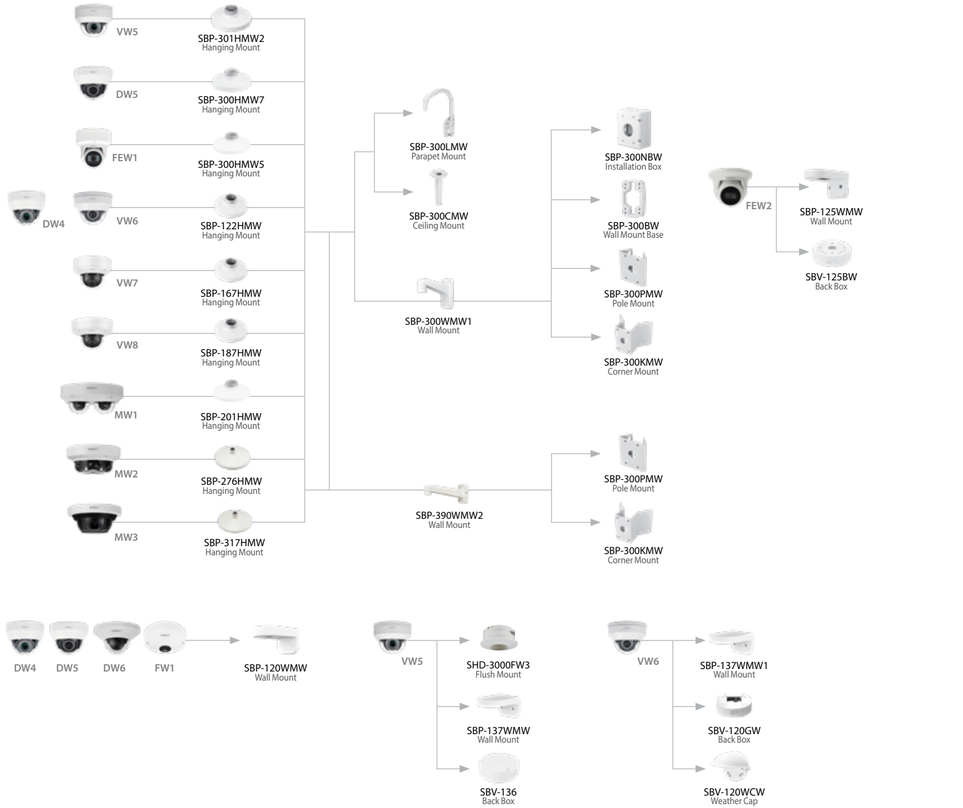
ACCESSORY CONFIGURATION

PTZ ACC



WHITE ACC



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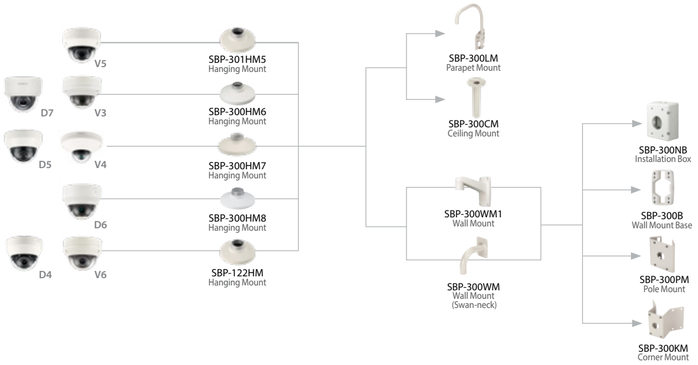
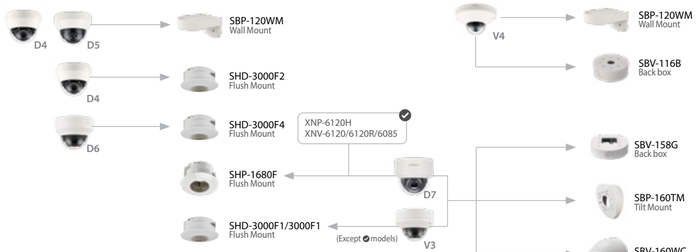
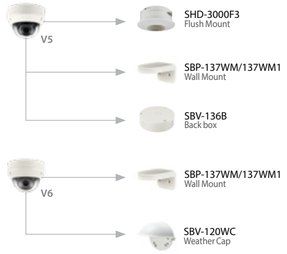
ACCESSORY CONFIGURATION

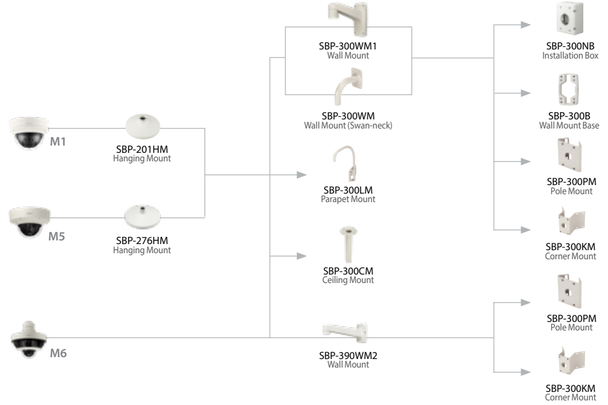
DOME ACC







MULTI SENSOR ACC



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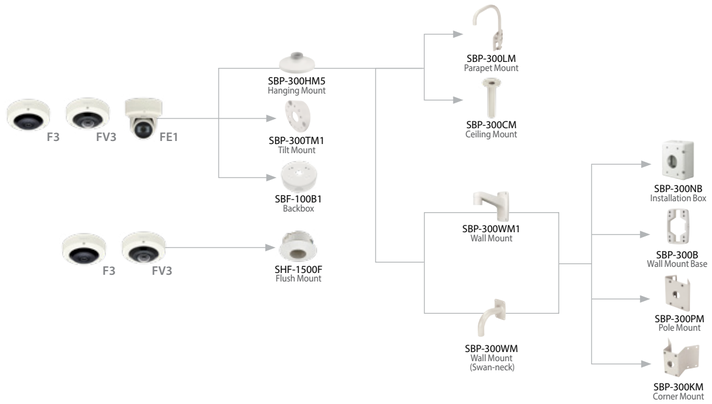
ACCESSORY CONFIGURATION

STAINLESS ACC

FISHEYE ACC



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BULLET ACC

How to use **Accessory Selector**

Step1. click"Accessory Selector"on hanwha-techwin.com

Step2. Select camera you're interested in, then choose compatible mounts or lens including amount

Step3. Results you searched can be exported with PDF and excel format

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Hanwha Techwin Europe
Heriot House, Heriot Road, Chertsey, Surrey, KT16 9DT, United Kingdom
Tel : +44.1932.57.8100
Fax : +44.1932.57.8101
www.hanwha-security.eu

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