



WISENET

Product Line-up

2022 H2

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.



Hanwha Techwin

- 1977 Established the company
- 1991 Initiation of video surveillance business
- 1993 Development of nation's first iris lens for CCTV
- 2008 Release of world's first 37x PTZ camera
- 2010 Samsung Techwin acquires Samsung's video surveillance business
- 2012 Release of world's first 37x zoom interworking IR PTZ camera
- 2013 Release of Wisenet3 camera
- 2015 Hanwha group acquires Samsung Techwin and Hanwha Techwin is established
- 2016 Development of Wisenet5 ISP Chip (SoC)
- 2017 Release of Wisenet X camera
- 2018 Hanwha Techwin Vietnam manufacturing subsidiary established
- 2019 World's first 55x IR PTZ camera launched
- 2020 Launch of Wisenet 7 SoC

Based on world class optical image processing technology, Wisenet provides high-resolution cameras, recording devices and enterprise management software.

For a complete security solution including intelligent video analytics, Hanwha offers a full lineup of video surveillance solutions.

Wisenet

Wisenet is the signature brand of Hanwha Techwin's security business. It embodies the spirit of building a safe, secure, and connected world.

Core value



Complete

- Seamless Security
- Dependable Quality
- Comprehensive Solutions



Assured

- Partner-assured
- Buyer-assured
- User-assured



Value-added

- Added Usability
- Added Flexibility
- Added Possibility



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.

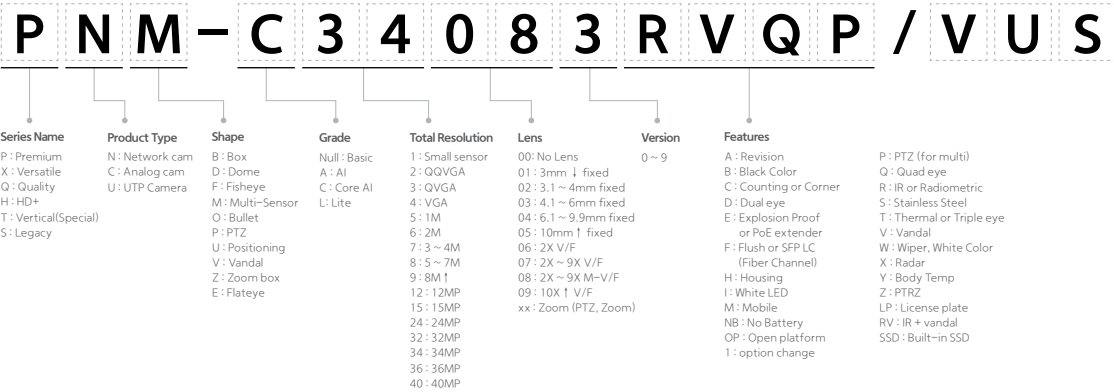


Intelligent Analytics

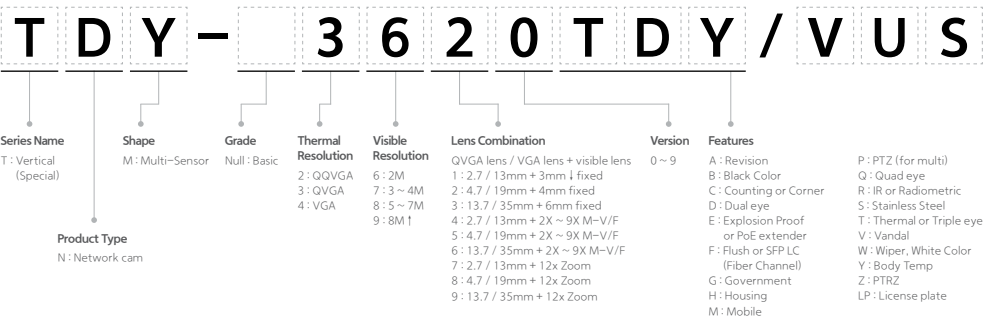
Hanwha Techwin provides exclusive solutions for intelligent analysis thanks to its unique analysis algorithms.

PRODUCT NAMING RULE

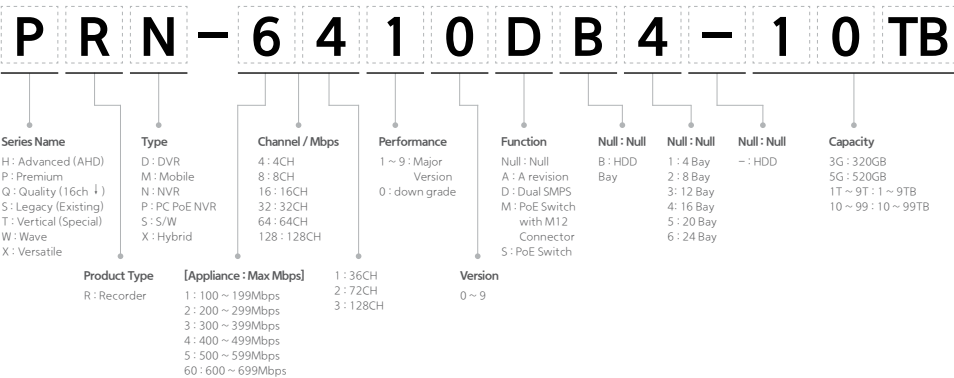
Camera



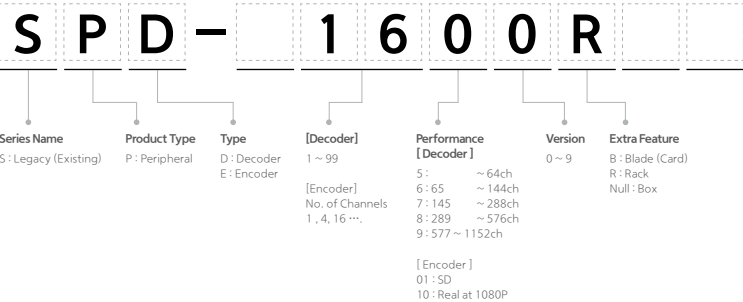
Camera (thermal-multi sensor)



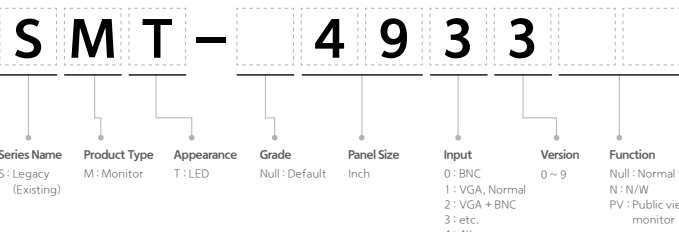
Recorder



Decoder/Encoder



Monitor



Example:
6MP x 2CH = 12MP
8MP x 4CH + 2MP PTZ = 34MP

A : AI with object classification + attributes
C : AI with object classification



NETWORK7 _ 73

Camera7 _ 67

Wisenet P series.....7 _ 19

Wisenet X series 20 _ 49

 Wisenet 7 21 _ 25

Wisenet Q series 50 _ 59

Wisenet T series 60 _ 67

NVR 68 _ 70

Wisenet P / X / Q / T series 68 _ 70

Encoder / Decoder / Storage 71

Software 72 _ 73

ANALOG74 _ 81

Camera 74 _ 78

Wisenet HD+ series..... 74 _ 78

DVR 79 _ 81

Pentabrid DVR 79 _ 81

PERIPHERAL82 _ 83

Monitor 82

Controller 83

Lens 83

ACCESSORY84 _ 87

Accessory 84 _ 87

Wisenet P series

Premium cameras with the most advanced technology

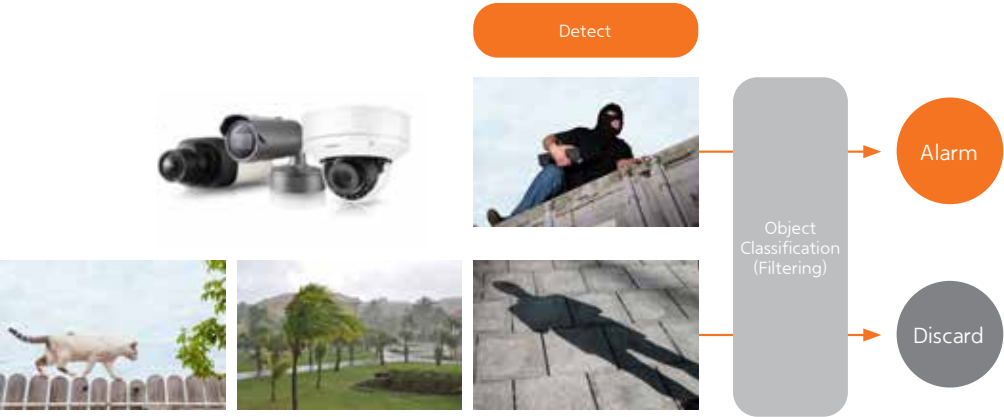
Wisenet P series, the ultimate premium cameras designed with the most advanced technology, delivers users an outstanding video surveillance solution. From bullet cameras to multi-sensor cameras, the P series have a wide range of products optimised for applications which require extreme details and wide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



WISENET AI Cameras

NO CONFUSION,
NO HIGH COSTS.

REDUCE FALSE ALARMS WITH CAMERAS POWERED
BY DEEP LEARNING ARTIFICIAL INTELLIGENCE

Female
Glasses
Red coat
Bag

Vehicle
Car
Black

Vehicle
Number plate

Three main functions of AI cameras

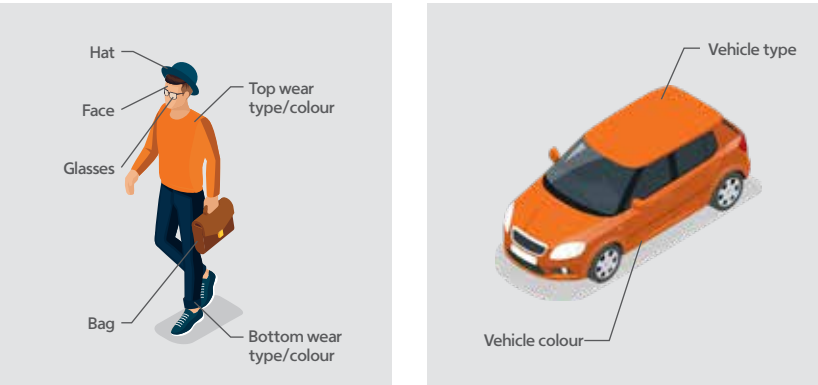
New Object Detection

- 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)



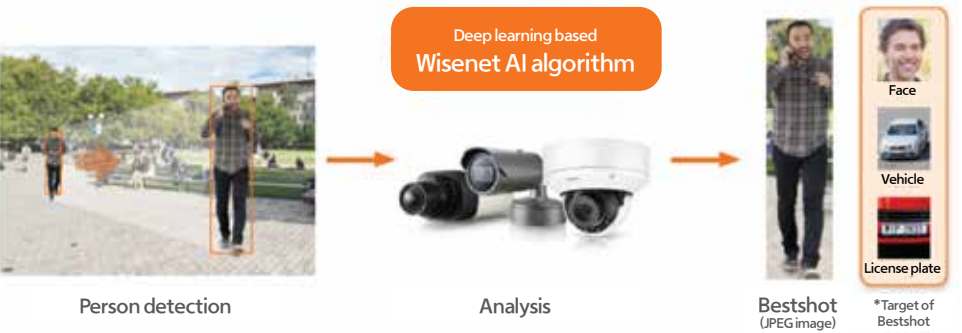
Attributes for forensic search

- 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 / XNB-9003	PNB-A6001 / XNB-8003 / XNB-6003
BULLET	PNO-A9081R / XNO-C9083R	PNO-A6081R / XNO-C9083R
VANDAL	PNV-A9081R	PNV-A6081R
DOME	PND-A9081RV	PND-A6081RV
DOME (FLUSH)	PND-A9081RF	PND-A6081RF

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.



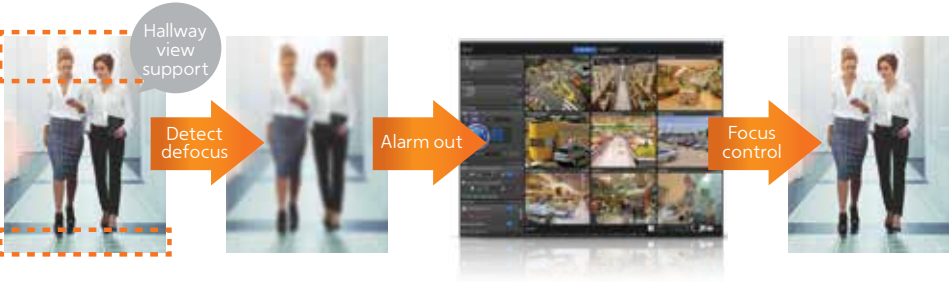
Digital Auto Tracking

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.



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.

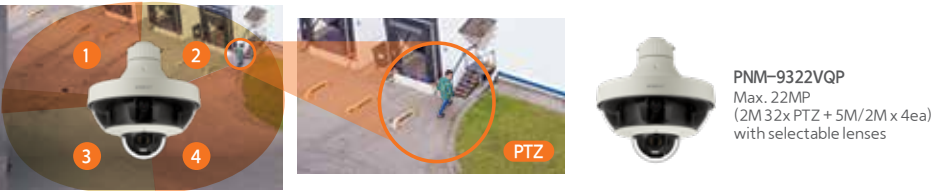
- Multi-sensor cameras can simultaneously cover a full 360° area without any blind spots. When combined with a built-in PTZ camera (PNM-9322VQP), detailed images can be obtained through the use of an effective zoom function.
- Panoramic cameras can provide a wide, panoramic view of any area by stitching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

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

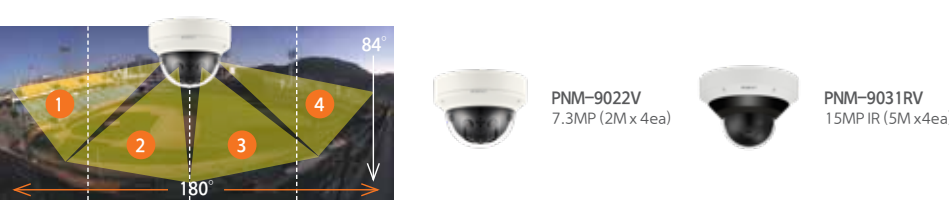
Multi-directional Cameras



Multi-directional Camera with PTZ



Panoramic Cameras



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-7082RVD (2MP)/PNM-12082RVD (6MP) – x 2CH Multi-directional Camera non AI camera
- PNM-C7083RVD (2MP)/PNM-C12083RVD (6MP) – x 2CH Multi-directional Camera non AI camera

The PNM-7082RVD / PNM-12082RVD and PNM-C7083RVD / PNM-C12083RVD 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).



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

Four cameras in one

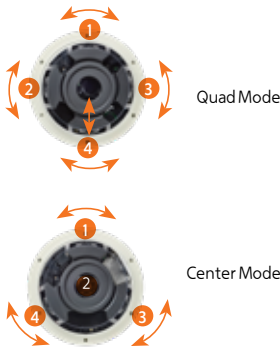
- PNM-9084QZ1 8MP (2M x 4ea)
- PNM-9084RQZ1/9085RQZ1 8MP (2M x 4ea) / 20MP (5M x 4ea)
- PNM-9002VQ Max. 20MP (5M/2M x 4ea) with selectable lens modules

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.



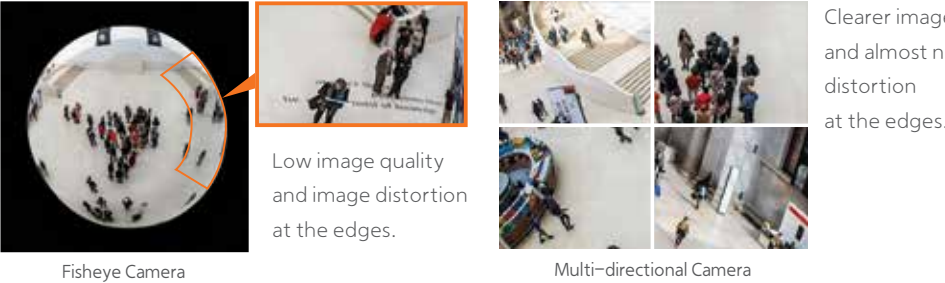
Flexible set-up

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.



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.



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

	AI CAMERA PNO-A9081R 4K AI IR Bullet Camera	AI CAMERA PNV-A9081R 4K AI IR Vandal Dome Camera	AI CAMERA PND-A9081RV 4K AI IR Dome Camera	AI CAMERA PND-A9081RF 4K AI IR Dome Camera	AI CAMERA PNB-A9001 4K AI Box Camera	AI CAMERA PNO-A6081R 2MP Network AI IR Bullet 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	1/2" 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)	Colour : 0.007Lux(F1.3) BW : 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	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p, Micro USB Type B
Focal Length	4.5~10mm(2.2x) motorized varifocal	4.5~10mm(2.2x) motorized varifocal	4.5~10mm(2.2x) motorized varifocal	4.5~10mm(2.2x) motorized varifocal	—	4.38~9.33mm(2.13x) 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)	—	H: 103.1°(Wide) ~ 44.5°(Tele) / V: 54.2°(Wide) ~ 24.9°(Tele) / D: 124°(Wide) ~ 51.1°(Tele)
Pan / Tilt / Rotate	—	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	—	—
IR Viewable Length	30m(98.42ft)	30m(98.42ft)	30m(98.42ft)	30m(98.42ft)	—	40m(131.23ft), Wise IR
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	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)	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	Face mask detection, Social distancing detection, 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	People counting, Queue management, Heatmap based on AI engine
Alarm I/O	1 / 1	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	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	8MP/30fps	8MP/30fps	8MP/30fps	8MP/30fps	8MP/30fps	2MP / 120fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II, WiseStream III
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 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	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	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)	-50°C ~ +55°C (-58°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, Plenum rate(UL2820)	—	IP66/IP67, IK10, NEMA4X
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	PoE+ : Max 19.50W, typical 16.00W 12VDC : Max 17.00W, typical 13.50W
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)	Ø91.0x368.6mm (3.58" x 14.51") (Without sunshield), 2.48Kg (5.47lb)
Additional Features	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)

	 AI CAMERA	 AI CAMERA	 AI CAMERA	 AI CAMERA	 AI CAMERA	 AI CAMERA
	PNV-A6081R 2MP Network AIIR Vandal Dome Camera	PND-A6081RV 2MP Network AIIR Dome Camera	PND-A6081RF 2MP Network AIIR Dome Camera	PNB-A6001 2MP Network AI Box Camera	PNB-A9001LP 4K Low-Mid-High speed LPR/ANPR Box Camera	PNV-A9081RLP 4K LPR/ANPR IR Vandal Dome Camera
Imaging Device	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/1.8" CMOS	1/1.8" 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: 0.006Lux(F1.2) B/W: 0.0006Lux(F1.2)	Colour: 0.03Lux(F1.2, 1/30sec) B/W: 0.003Lux(F1.2, 1/30sec)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	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	—	—	4.5~10mm(2.2x) 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: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°	—	—	0~360 / -45~85 / 0~355
IR Viewable Length	40m(131.23ft), Wise IR	40m(131.23ft), Wise IR	40m(131.23ft), Wise IR	—	—	30m(98.42ft)
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	SSNR, WiseNR II (using AI engine)	SSNR, WiseNR II (using AI engine)	SSNR, WiseNR II (using AI engine)	SSNR, WiseNR II (using AI engine)	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	Face mask detection, Social distancing detection, Object detection (Person/ Vehicle/Face/License plate), Audio detection, Sound classification	Face mask detection, Social distancing detection, Object detection (Person/ Vehicle/Face/License plate), Audio detection, Sound classification	Face mask detection, Social distancing detection, Object detection (Person/ Vehicle/Face/License plate), Audio detection, Sound classification	Face mask detection, Social distancing detection, Object detection (Person/ Vehicle/Face/License plate), Audio detection, Sound classification	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection
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	—	—
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/ 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	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 / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps	4K / 30fps	4K / 30fps
WiseStream	WiseStream II, WiseStream III	WiseStream II, WiseStream III	WiseStream II, WiseStream III	WiseStream II, WiseStream III	WiseStream II	WiseStream II
Streaming	Up to 5 profiles	Up to 5 profiles	Up to 5 profiles	Up to 5 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	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	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 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	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be above -30°
Certification	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, IK10, Plenum rate	—	—	IP66/IP67/IP6K9K, IK10+, NEMA4X
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 17.5W, Typ 13.7W 12VDC: Max 14W, Typ 10.6W	PoE+: Max 16.50W, typical 12.50W 12VDC: Max 13.50W, typical 10.80W	PoE+: Max 20.00W, typical 17.00W 12VDC: Max 18.70W, typical 15.00W
Dimensions (WxHxD) / Weight	Ø 180x125mm(7.09x4.92"), 1.90Kg (4.19lb)	Ø 160x125mm(6.30x4.92"), 1.60Kg (3.53lb)	Ø 205x163mm(8.07x4.92"), 1.95Kg (4.30lb)	81x67x165mm(3.19x2.64x6.48"), 0.88kg(1.94lb)	81x67x165mm(3.19x2.64x6.48"), 0.88kg(1.94lb)	Ø 180x125mm(7.09x4.92"), 1.90Kg (4.19lb)
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 CAMERA	 AI CAMERA	 AI CAMERA	 AI CAMERA	 AI CAMERA	 AI CAMERA
	PNO-A9081RLP 4K LPR/ANPR IR Bullet Camera	PNM-9031RV 15MP IR 192 ° Panoramic Camera	PNM-9022V 2MP x 4CH H.265 Panoramic 180 ° /209 ° Camera	PNM-9085RQZ1 20MP IR Multi-Directional Camera	PNM-9084RQZ1 8MP IR Multi-Directional Camera	PNM-9084QZ1 8MP Multi-directional Camera
Imaging Device	1/1.8" CMOS	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
Min. Illumination	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED on)	Colour: 0.03Lux(F1.6, 1/30sec)	Colour: 0.11lux(F1.6,30IRE) BW: 0Lux(IR LED on)	Colour: 0.05lux(F1.6,30IRE) BW: 0Lux(IR LED on)	Colour : 0.08lux(F2.2) BW : 0.008lux(F2.2)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	Micro USB Type B	Micro USB Type B,	—	—	—
Focal Length	4.5~10mm(2.2x) motorized varifocal	4.3mm 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
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: 192 ° , V: 65 °	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)
Pan / Tilt / Rotate	—	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 °
IR Viewable Length	30m(98.42ft)	20m (65.6ft), WiseIR	—	30m (98.43ft)	30m (98.43ft)	—
Day & Night	Auto (ICR)	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	SSNRV
Digital Image Stabilization	Support(built-in gyro sensor)	—	—	Support	Support	Support
Analytics	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Intelligent analytics, Audio detection, Motion detection, Sound Classification	Intelligent analytics, Audio detection, Motion detection, Sound Classification	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/ Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection
Business Intelligence	—	Heatmap	Heatmap	—	—	—
Alarm I/O	1 / 1	Selectable 2 port	Selectable 2 port	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	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	4K / 30fps	15MP / 20fps	—	4x 5MP / 30fps	4x 2MP / 60fps	4x 2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 profiles	Up to 4 Profiles	Up to 10 Profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, 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
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C	-40°C~+55° (-40°F ~ +131°F) / * Start up above -30°C	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)
Certification	IP66/IP67, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE+: Max 20.0W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W	PoE+: Max (25.5)W 12VDC: Max (16)W	PoE+: Max 18W 12VDC: Max 16W	HPoE : Max 60W 12VDC: TBD	HPoE : Max 60W 12VDC: TBD	HPoE : Max 35W
Dimensions (WxHxD) / Weight	Ø 91.0x368.6mm (3.58" x 14.51") (Without sunshield), 2.48Kg (5.47lb)	253x170mm 2.6Kg	Ø 253x165mm (9.96"x6.5") 3200g	Ø 315 x 145.9mm	Ø 315 x 145.9mm	Ø 251 x 116.5mm (Ø 9.88" x 4.59") 3Kg (6.6 lb)
Additional Features	—	—	—	Motorized PTRZ, Hallway View, Defog	Motorized PTRZ, Hallway View, Defog	Hallway view, Defog

	 PNM-8082VT 2MP x 3CH H.265 Multi-directional Camera	 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" CMOS x 3CH	–	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: 0.04lux(F2.2, 1/30sec) BW: 0.004lux(F2.2, 1/30sec)	–	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	CVBS: 1.0 Vp-p	HDMI(1920x1080, Single/Quad view)	–	–	–	–	–
Focal Length	3~6mm(2x) motorized varifocal	Lenses sold separately	1.6mm fixed	2.4mm fixed	2.4mm fixed	4.6mm fixed	4.6mm fixed
Angular Field of View	H: 107 ° (Wide)~56.3 ° (Tele) / V: 57 ° (Wide)~31.5 ° (Tele) / D: 126 ° (Wide)~64.3 ° (Tele)	–	H: 187 ° / V: 113.9 °	H: 138 ° / V: 73 ° / D: 165 °	H: 138 ° / V: 73 ° / D: 165 °	H: 73 ° / V: 39 ° / D: 85 °	H: 73 ° / V: 39 ° / D: 85 °
Pan / Tilt / Rotate	0~360 ° / 0~73 ° / 0~90 °	–	–	–	–	–	–
IR Viewable Length	–	–	–	–	–	–	–
Day & Night	Auto (ICR)	Auto (Electrical)	–	–	–	–	–
Wide Dynamic Range	extreme WDR (150dB)	120dB	–	–	–	–	–
Digital Noise Reduction	SSNRV	SSNRV	–	–	–	–	–
Digital Image Stabilization	Support	Support	–	–	–	–	–
Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	–	–	–	–	–
Business Intelligence	–	–	–	–	–	–	–
Alarm I/O	–	2 / 2	–	–	–	–	–
Audio I/O	–	Selectable(mic in/line in) / Line out	–	–	–	–	–
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	–	–	–	–	–
Resolution / Max. Frame Rate	3x 2MP / 30fps	4x 2MP / 30fps	–	–	–	–	–
WiseStream	WiseStream II	WiseStream II	–	–	–	–	–
Streaming	Up to 10 Profiles	Up to 12 profiles	–	–	–	–	–
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	–	–	–	–	–
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API)	ONVIF Profile S/T, SUNAPI(HTTP API)	–	–	–	–	–
Operating Temperature	–40°C~+55°C(–40°F~+131°F) / Less than 95% RH (Non condensing) *Start up should be above at –35 ° C	–10°C ~ +45°C(–40°F ~ +113°F) / Less than 95% RH (Non condensing)	–	–	–	–	–
Certification	IP66, IK10, NEMA4X	–	–	–	–	–	–
Power Consumption	PoE+	PoE : Max 22.00W 12V DC : Max 19.00W	–	–	–	–	–
Dimensions (WxHxD) / Weight	Ø251x116.5mm 3Kg	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	Defog	–	–	–	–	–	–

	 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: Lenses excluded 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	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	–	–	–	–	–	–	–	–
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	–	–	–	–	–	–	–	–

								
	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	Lenses sold separately	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	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	–	–	–	–	–	–	–
Business Intelligence	–	–	–	–	–	–	–	–
Alarm I/O	–	–	–	–	–	–	–	–
Audio I/O	–	–	–	–	–	–	–	–
Video Compression	H.265, H.264, MJPEG	–	–	–	–	–	–	–
Resolution / Max. Frame Rate	5MP / 30fps, 2MP / 60fps	–	–	–	–	–	–	–
WiseStream	WiseStream II	–	–	–	–	–	–	–
Streaming	Up to 10 Profiles	–	–	–	–	–	–	–
Edge Storage	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	Ø253mm x 130mm, 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	–	–	–	–	–	–	–

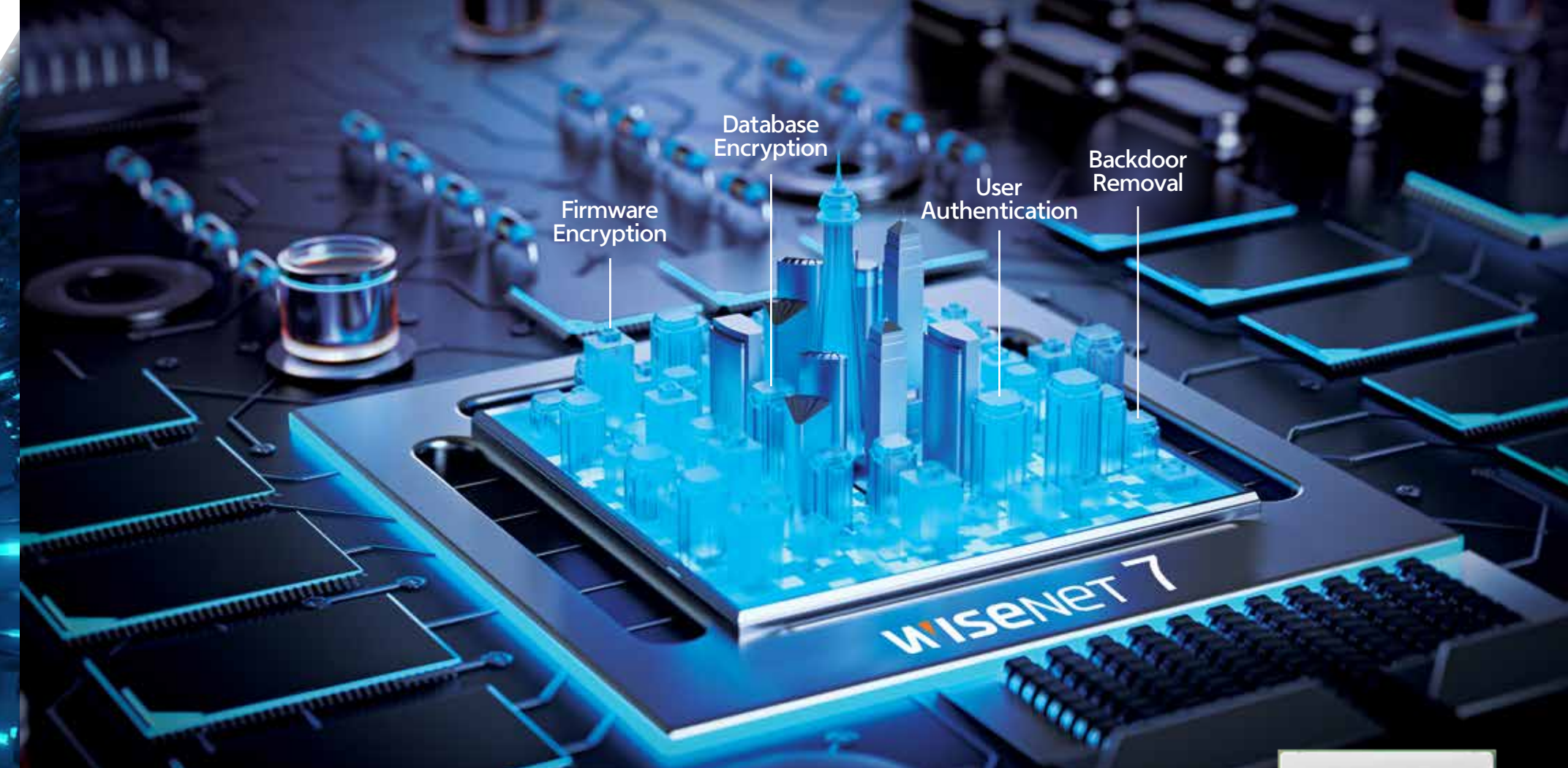
				
	PNM-C7083RVD 2MP x 2CH AI Multi-directional Camera	PNM-C12083RVD 6MP x 2CH AI Multi-directional Camera	PNM-7082RVD 2MP x 2CH Multi-directional Camera	PNM-12082RVD 6MP x 2CH Multi-directional Camera
Imaging Device	1/2.8" CMOS x 2CH	1/2.8" CMOS x 2CH	1/2.8" CMOS x 2CH	1/2.8" CMOS x 2CH
Min. Illumination	Colour: 0.035Lux (F2.2, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.16Lux (F1.67, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.035lux (F2.2, 1/30sec, 30IRE) BW: 0lux (IR LED on)	Colour: 0.16lux (F1.67, 1/30sec, 30IRE) BW: 0Lux (IR LED on)
Video Output	Micro USB Type B	Micro USB Type B	micro USB Type B	micro USB Type B
Focal Length	3 ~ 6mm (2x) motorized varifocal per CH	3.54 ~ 6.69mm (1.9x) motorized varifocal	3 ~ 6mm (2x) motorized varifocal	3.54 ~ 6.69mm (1.9x) motorized varifocal
Angular Field of View	H: 107°(Wide) ~ 56°(Tele) V: 57°(Wide) ~ 31°(Tele) D: 126°(Wide) ~ 64°(Tele)	H: 96°(Wide) ~ 47°(Tele) V: 51°(Wide) ~ 26°(Tele) D: 113°(Wide) ~ 54°(Tele)	H: 107°(Wide) ~ 56°(Tele) V: 57°(Wide) ~ 31°(Tele) D: 126°(Wide) ~ 64°(Tele)	H: 96°(Wide) ~ 47°(Tele) V: 51°(Wide) ~ 26°(Tele) D: 113°(Wide) ~ 54°(Tele)
Pan / Tilt / Rotate	0 ~ 355° / 0 ~ 78° / 0 ~ 180°	0 ~ 355° / 0 ~ 78° / 0 ~ 180°	0 ~ 355° / 0 ~ 78° / 0 ~ 180°	0 ~ 355° / 0 ~ 78° / 0 ~ 180°
IR Viewable Length	25m (82ft)	25m (82ft)	25m (82ft)	25m (82ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V	WiseNR, SSNR V	WiseNR, SSNR V
Digital Image Stabilization	–	–	–	–
Analytics	Classified object type : Person/Face/Vehicle/ License plate Attributes : Vehicle (Type:car/bus/truck/ motorcycle/bicycle) Support Bestshot Analytics events based on AI engine : Object detection, Virtual line (Crossing/ Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Analytics events*: Defocus detection, Motion detection, Tampering, Virtual area (Appear/Disappear) * Support Audio detection, Sound classification via optional SPM-4210 I/O box	Classified object type : Person/Face/Vehicle/ License plate Attributes : Vehicle (Type:car/bus/truck/ motorcycle/bicycle) Support Bestshot Analytics events based on AI engine : Object detection, Virtual line (Crossing/ Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Analytics events*: Defocus detection, Motion detection, Tampering, Virtual area (Appear/Disappear) * Support Audio detection, Sound classification via optional SPM-4210 I/O box	Analytics events* : Defocus detection, Motion detection, Tampering, Virtual line (Crossing/Direction), Virtual area (Loitering/ Enter/Exit) * Support Audio detection, Sound classification via optional SPM-4210 I/O box	Analytics events* : Defocus detection, Motion detection, Tampering, Virtual line, (Crossing/Direction), Virtual area (Loitering/Enter/Exit) * Support Audio detection, Sound classification via optional SPM-4210 I/O box
Business Intelligence	–	–	–	–
Alarm I/O	* Support Alarm via optional SPM-4210 I/O box	* Support Alarm via optional SPM-4210 I/O box	* Support Alarm via optional SPM-4210 I/O box	* Support Alarm via optional SPM-4210 I/O box
Audio I/O	* Audio in/out via optional SPM-4210 I/O box	* Audio in/out via optional SPM-4210 I/O box	* Audio in/out via optional SPM-4210 I/O box	* Audio in/out via optional SPM-4210 I/O box
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	6MP / 15fps	2MP / 30fps	6MP / 15fps
WiseStream	WiseStream II , WiseStream III (Based on AI engine)	WiseStream II , WiseStream III (Based on AI engine)	WiseStream II	WiseStream II
Streaming	Unicast (10 users) / Multicast 5 profiles per channel	Unicast (10 users) / Multicast 5 profiles per channel	Up to 10 profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 1slot Max. 512GB
Application Programming Interface	ONVIF Profile S/T, SUNAPI (HTTP API) Open platform	ONVIF Profile S/T, SUNAPI (HTTP API) Open platform	ONVIF Profile S/T, SUNAPI (HTTP API) Open platform	ONVIF Profile S/T, SUNAPI (HTTP API) Open platform
Operating Temperature	–40°C ~ +55°C (–40°F ~ +131°F) / Less than 95% RH (Non-condensing)	–40°C ~ +55°C (–40°F ~ +131°F) / Less than 95% RH (Non-condensing)	–40°C ~ +55°C (–40°F ~ +131°F) / Less than 95% RH (Non-condensing) * Start up should be above at –35°C	–40°C ~ +55°C (–40°F ~ +131°F) / Less than 95% RH (Non-condensing) * Start up should be above at –35°C
Certification	IP66/IP67, NEMA4X, IK10	IP66/IP67, NEMA4X, IK10	IP66/IP67, NEMA4X, IK10	IP66/IP67, NEMA4X, IK10
Power Consumption	PoE+: Max 20W, typical 15.5W	PoE+: Max 21W, typical 16.5W	PoE+: Max 17W, typical 12.5W	PoE+: Max 18.3W, typical 13.5W
Dimensions (WxHxD) / Weight	W 215 x H 135 x D 93.2mm (8.46" x 5.31" x 3.67"), 1.33kg (2.93lb)	W 215 x H 135 x D 93.2mm (8.46" x 5.31" x 3.67"), 1.33kg (2.93lb)	W 215 x D 135 x H 93.2mm (8.46" x 5.31" x 3.67"), 1.33kg (2.9lb)	W 215 x D 135 x H 93.2mm (8.46" x 5.31" x 3.67"), 1.33kg (2.9lb)
Additional Features	–	–	–	–

WISeNET X series

X-SERIES MEETS AI

AFFORDABLE
AI UNLOCKED

- AI based object detection – Person, Face, Vehicle, License Plate
- AI based enhanced image processing – WiseNR11, WiseStream111
- AI search support for Genetec, Milestone & Wisenet Wave
- Wide range of camera types and resolutions from 2MP to 4K
- Next level cybersecurity – UL CAP, FIPS 2.0, NDAA compliant



WISeNET 7

A New World of Cyber Security

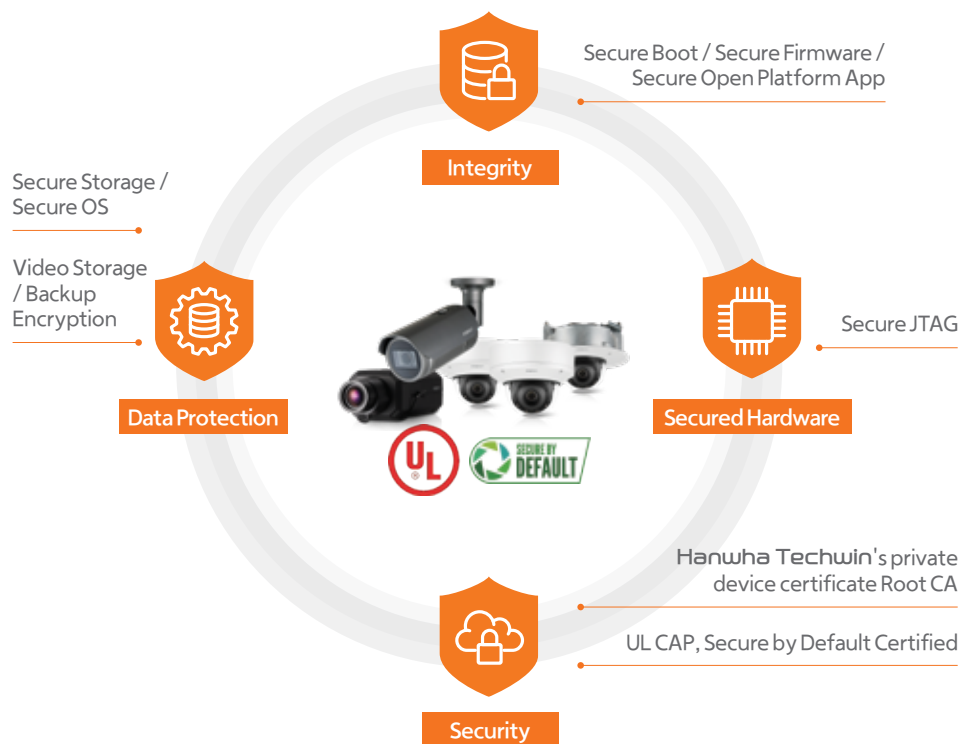
Exceptional cyber protection from the latest generation SoC

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



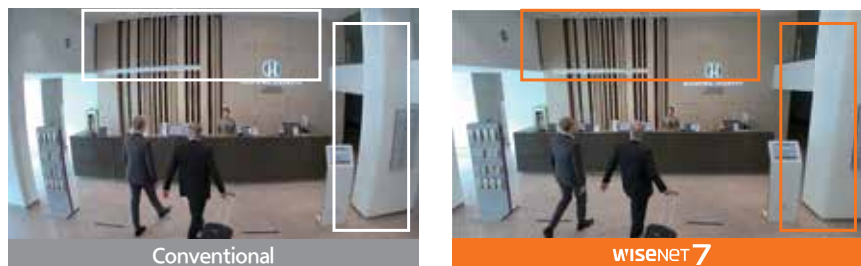
End-to-End Cybersecurity

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.



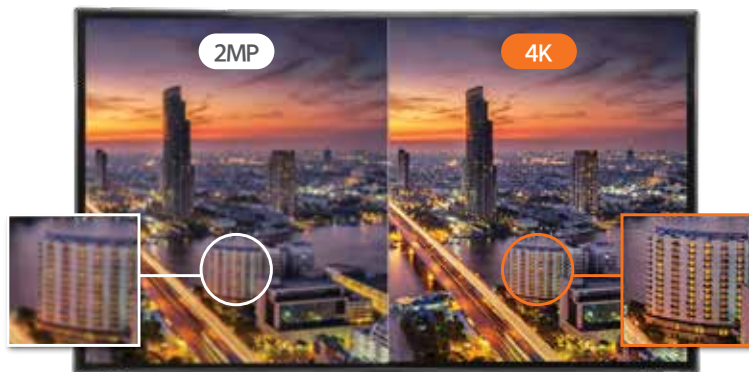
Realistic image without image distortion

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

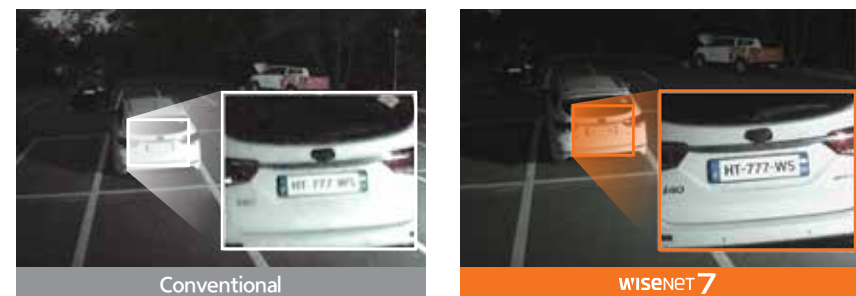
Wisenet7 camera devices provide clear and vivid images in resolutions of up to 4K suitable for forensic search applications.



NETWORK

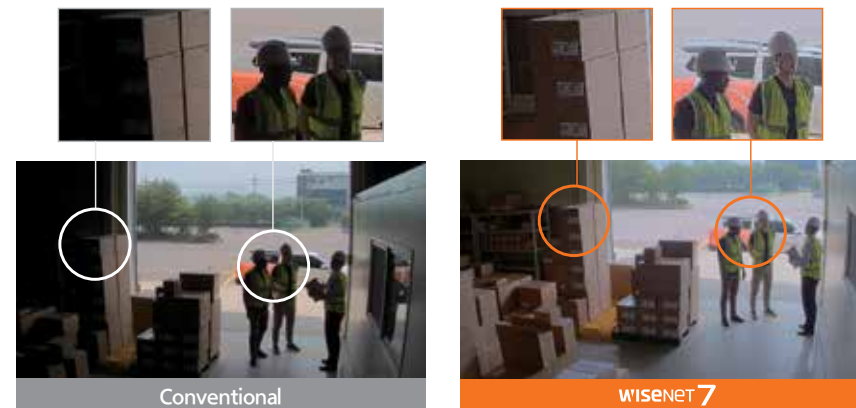
Sharper images with enhanced noise reduction technology

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.



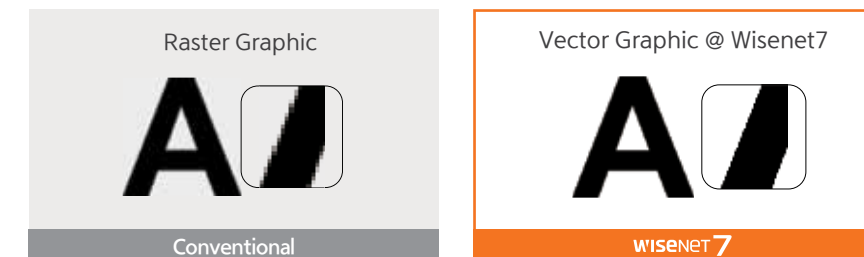
extreme WDR's enhanced noise reduction technology

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.



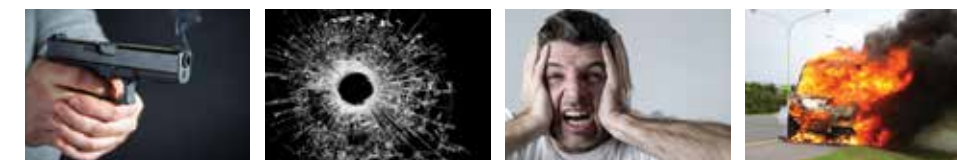
Vector-based OSD

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 overlaid on live or exported video.



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.



	WISENET 7  XNB-9002 4K Network Box Camera	WISENET 7  XND-9082RV 4K Network IR Dome Camera	WISENET 7  XND-9082RF 4K Network IR Dome Camera	WISENET 7  XNV-9082R 4K Network IR Vandal Dome Camera	WISENET 7  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, max 13.5W	PoE: typ 10.5W, max 12.95W 12VDC: typ 9.4W, max 12.5W 24VAC: typ 11.2W, max 14.5W
Dimensions (WxHxD) / Weight	Ø81 x 165 x 67mm (Ø3.19" x 6.48" x 2.64") 0.88kg	Ø160 x 125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	Ø205 x 163mm (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	-	-	-	-	-

	WISENET 7  XNB-8002 6MP Network Box Camera	WISENET 7  XND-8082RV 6MP Network IR Dome Camera	WISENET 7  XND-8082RF 6MP Network IR Dome Camera	WISENET 7  XNV-8082R 6MP Network IR Vandal Dome Camera	WISENET 7  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	PoE: typ 10.5W, max 12.95W 12VDC: typ 9.4W, max 12.5W 24VAC: typ 11.2W, max 14.5W
Dimensions (WxHxD) / Weight	Ø81 x 165 x 67mm (Ø3.19" x 6.48" x 2.64") 0.88kg (1.94lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	Ø205 x 163mm (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	-	-	-	-	-



Wisenet PTZ PLUS MAKE LIGHT WORK OF INSTALLATION

SIMPLE, LIGHTWEIGHT DESIGN

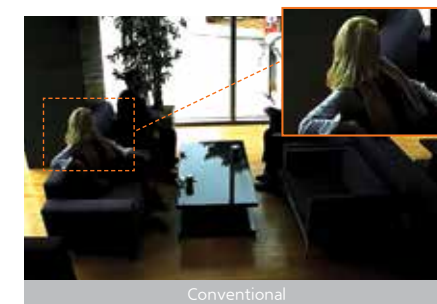
- Compact size, light weight
- 1 terminal with 1 cable, easy cable connection
- Quick and easy camera-mount installation
- Precise PTZ control
- Widened Tilt angle
- Exceptional image quality up to 4K



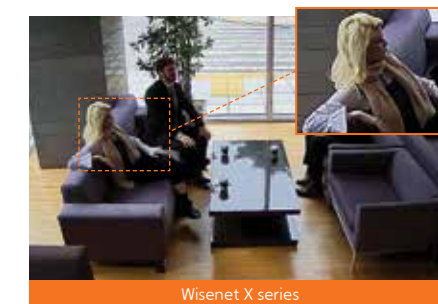
Wisenet X series

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

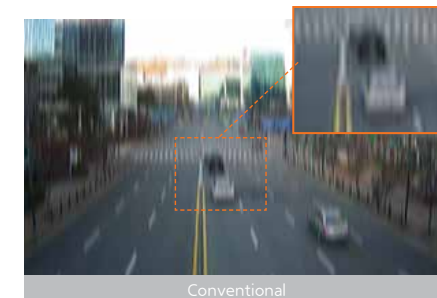


Wisenet X series

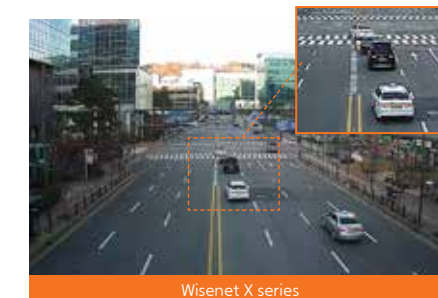
※ 150dB WDR only available in 2MP X series

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

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)

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

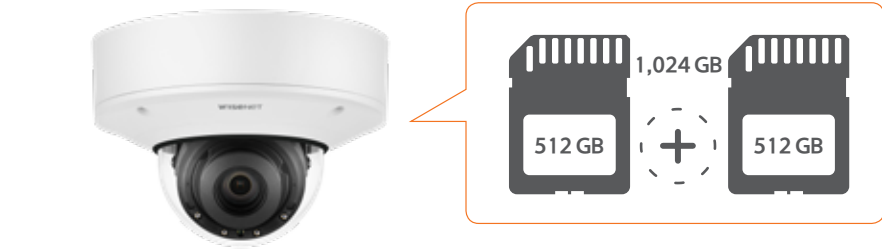
Simple installation with USB

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.



Dual SD slots

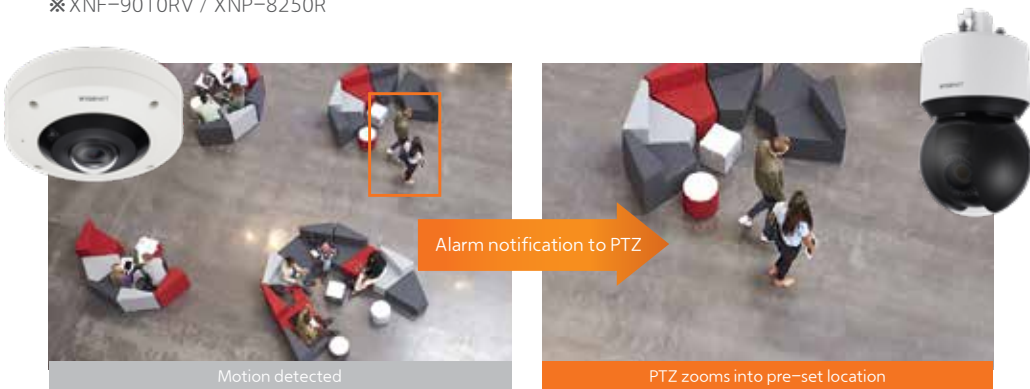
Keep data safe in the event of an unstable network by saving up to 1,024 GB automatically to the camera with Dual SD Slots.



Handover to PTZ

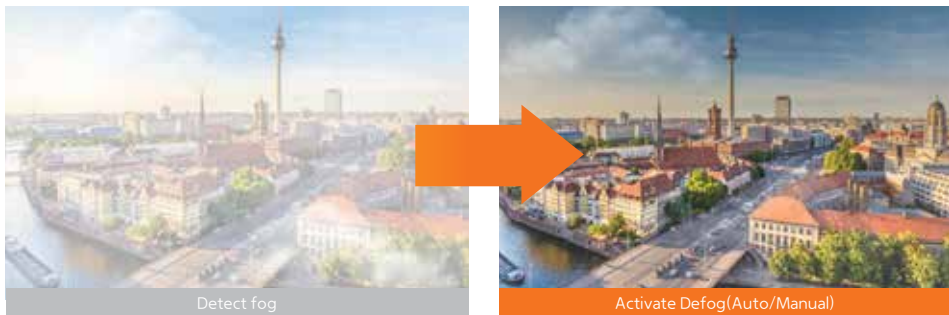
The handover feature allows a select camera to receive an alarm (motion detection) from a Wisenet X series camera operating on the same IP video surveillance system. Once the notification is received, the PTZ camera will zoom into the assigned camera pre-set location.

※ XNF-9010RV / XNP-8250R



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.



Enhanced Video / Audio Analytics

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

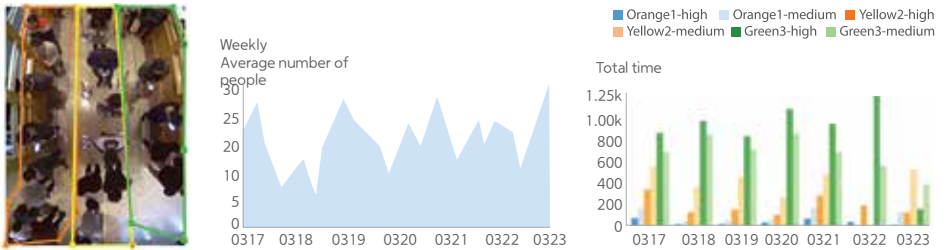
Loitering detection

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



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.



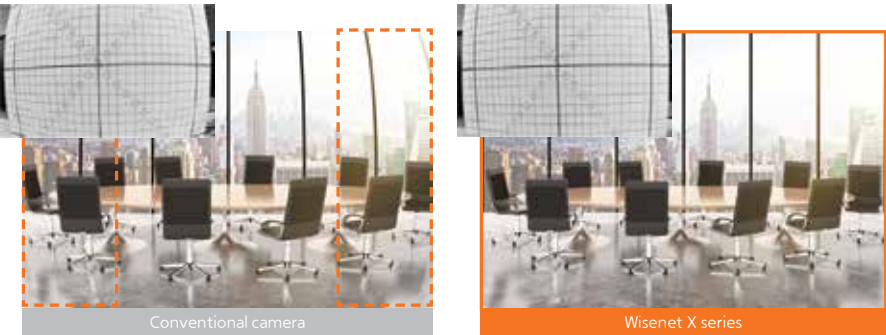
Sound classification

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



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.



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.



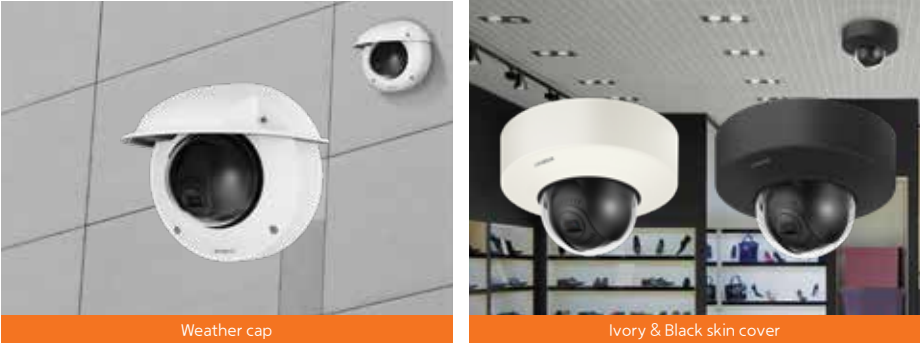
Extended tilt range for greater flexibility

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 (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-187HMMW Hanging mount Compatible with XNV-6081Z/8081Z	SBP-167HMMW Hanging mount Compatible with XND-6081Z/8081Z
SBP-300WMW1 Wall mount Compatible with SBP-180HMMW/160HMMW	SBP-300KMW Corner mount Compatible with SBP-300WMW1	SBP-300PMW Pole mount Compatible with SBP-300WMW1	SBP-300CMW Celling mount Compatible with SBP-180HMMW/160HMMW	

	XNB-8000 5MP Box Camera	XNO-8080R 5MP IR Bullet Camera	XNO-8020R/8030R/8040R 5MP IR Bullet Camera	XND-8081VZ 5MP Dome Camera	XND-8081FZ 5MP Flush Mount Dome Camera	XND-8081REV 5MP IR PoE Extender 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 (Ø3.3" x 14.51") 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 (4.08lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.20lb)
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

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	3.9~9.4mm (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 (3.20lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97lb)	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

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



XNV-8020R/8030R/8040R
5MP IR Vandal 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	1/1.8" 6MP 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)	Colour : 0.16Lux (F1.6) B/W : 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	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	3.7mm fixed (XNV-8020R) 4.6mm fixed (XNV-8030R) 7.0mm fixed (XNV-8040R)
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)	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)
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°	0°~354° / 0°~67° / 0°~355°
IR Viewable Length	-	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	30m (98.43ft)
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)	Off / On (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection	Intelligent analytics, Audio detection Sound classification	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	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	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	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/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, 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) Less than 90% RH	-40°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)
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	IP66, IP67, IK10
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	PoE : Max 9.00W 12VDC : Max 8.00W
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)	Ø180 x 120.5mm (Ø6.3" x 4.67") 1.01kg (2.23lb)	Ø162x120.5mm (Ø6.38x4.74") 2.8kg(6.17lb)	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 615g (1.36lb)
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)	Handover, Hallway View

	 XNF-9010RS 12MP Stainless IR Fisheye Camera	 XNF-9010RV/9010RVM 12MP IR Fisheye Camera	 XNF-8010R/8010RV/8010RVM 6MP IR Fisheye Camera	 XNZ-6320A 2MP 32x Zoom Camera	 XNZ-L6320A 2M H.265 NW 32x Zoom Camera
Imaging Device	1/2.3" 12MP CMOS	1/2.3" 12MP CMOS	1/1.8" 6MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Color: 0.39 Lux (F2.2, 1/30sec) BW: 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	1.08mm fixed focal	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: 187° / V: 187° / D: 187°	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	-	-	-	-	-
IR Viewable Length	9m (29.53ft), Wise IR	10m(32.8ft), Wise IR	15m (49.21ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	120dB	150dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	-	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	2 configured I/O	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	3008 x 3008 / 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/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI Wisenet open platform
Operating Temperature	-40°C ~ +50°C (-40°F ~ +122°F) / Less than 95% RH	-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, IP6K9K, NEMA4X, IK10, IK10+ (it can resist impacts of 40joules), NSF/ANSI Standard 169 -Special Purpose Food Equipment and Devices.	IP66, IK10, NEMA4X	IP66, IK10 (XNF-8010RV/8010RVM)	-	-
Power Consumption	PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W	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	Ø 167.9 x 72.1mm (Ø66.1" x 28.38") 2.98kg (6.57lb)	Ø 160x72mm (62.99x28.35") 1100g(2.43lb)	Ø 146 x 54.8mm (Ø5.75" x 2.16"), 730g (1.61 lb) (XNF-8010R) Ø 146 x 65.8mm (Ø 5.75" 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	Various mode support (Original, Double panorama, Single panorama, Quad view)	-	M12 Connector (XNF-8010RVM), Built-in MIC, On board dewarping	Defog, SFP Slot	Defog, Handover

	 XNB-9003 4K AI Box Camera	 XNB-8003 6MP AI Box Camera	 XNB-6003 2MP AI Box Camera	 XNB-6005 2MP Box Camera (extraLUX)	 XNB-6000 2MP Box Camera
Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.8" progressive CMOS	1/2" 2.17MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour: 0.03Lux(F1.2, 1/30sec, 30IRE) BW: 0.003Lux(F1.2, 1/30sec, 30IRE)	Colour: 0.03Lux(F1.2, 1/30sec, 30IRE) BW: 0.003Lux(F1.2, 1/30sec, 30IRE)	Color: 0.007 Lux (F1.2, 1/30sec, 30IRE) BW: 0.0007 Lux (F1.2, 1/30sec, 30IRE)	Colour : 0.006Lux (F1.2) B/W : 0.0006Lux (F1.2)	Colour : 0.01Lux (F1.2) B/W : 0.001Lux (F1.2)
Video Output	CVBS 1.0Vp-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 1.0Vpp, Micro USB type B
Focal Length	-	-	-	-	-
Angular Field of View	-	-	-	-	-
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)	150dB	150dB
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V	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	Object detection (Person/Face/Vehicle/ License plate), IVA (Virtual line/Area, Enter/ Exit, Loitering, direction, Appear/Disappear, intrusion) Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/Vehicle/ License plate), IVA (Virtual line/Area, Enter/ Exit, Loitering, direction, Appear/Disappear, intrusion) Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/Vehicle/ License plate), IVA (Virtual line/Area, Enter/ Exit, Loitering, direction, Appear/Disappear, intrusion) Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, 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	2 configured I/O	2 configured I/O	2 configured I/O	1 / 1	1 / 1
Audio I/O	Selectable(mic in/line in/Built-in MIC)	Selectable(mic in/line in/Built-in MIC)	Selectable(mic in/line in/Built-in MIC)	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	4K / 30fps	6MP / 30 fps	2MP / 120fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream III	WiseStream III	WiseStream III	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	SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-10 ° C ~ 55 ° C (-14 ° F ~ +131 ° F) less than 95%RH(non-condensing)	-10 ° C ~ 55 ° C (-14 ° F ~ +131 ° F) less than 95%RH(non-condensing)	-10 ° C ~ 55 ° C (-14 ° F ~ +131 ° F) less than 95%RH(non-condensing)	-10 ° C ~ +55 ° C (+14 ° F ~ +131 ° F)	-10 ° C ~ +55 ° C (+14 ° F ~ +131 ° F)
Certification	-	-	-	-	-
Power Consumption	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W	PoE : Max. 8.5W 12VDC : Max 8W 24VAC : Max 8W	PoE : Max 7.5W 12VDC : Max 6.5W 24VAC : Max 8W
Dimensions (WxHxD) / Weight	81 x 67 x 165mm (3.19" x 2.64" x 6.48") 880g(1.94 lb)	81 x 67 x 165mm (3.19" x 2.64" x 6.48") 880g(1.94 lb)	81 x 67 x 165mm (3.19" x 2.64" x 6.48") 880g(1.94 lb)	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)
Additional Features	Handover, Audio clip playback	Handover, Audio clip playback	Handover, Audio clip playback	Handover, Hallway View	Handover, Hallway View

						
	XNB-6001 2MP Remote Head Camera	SLA-T4680 2MP lens for XNB-6001	SLA-T4680V 2MP lens for XNB-6001	SLA-T2480 2MP lens for XNB-6001	SLA-T2480V 2MP lens for XNB-6001	SLA-T1080F 2MP lens for XNB-6001
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 : 0.06Lux (F2.5) B/W: 0.06Lux (F2.5)	Colour : 0.06Lux (F2.5) B/W: 0.06Lux (F2.5)	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)
Video Output	CVBS 1.0Vp~p, Micro USB type B	—	—	—	—	—
Focal Length	—	4.6mm Pinhole	4.6mm Pinhole	2.4mm fixed	2.4mm fixed	1.6mm fisheye No Dewarping
Angular Field of View	—	H : 73° / V : 39° / D : 85°	H : 73° / V : 39° / D : 85°	H : 138° / V : 73° / D : 168°	H : 138° / V : 73° / D : 168°	H : 187° / V : 113.9°
Pan / Tilt / Rotate	—	—	—	—	—	—
IR Viewable Length	—	—	—	—	—	—
Day & Night	—	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	—	—	—	—	—
Digital Noise Reduction	SSNRV	—	—	—	—	—
Digital Image Stabilization	Support	—	—	—	—	—
Analytics	Intelligent analytics Audio detection	—	—	—	—	—
Business Intelligence	People counting, Queue management, Heatmap	—	—	—	—	—
Alarm I/O	1 / 1	—	—	—	—	—
Audio I/O	Selectable (mic in/line in) / Line out	—	—	—	—	—
Video Compression	H.265, H.264, MJPEG	—	—	—	—	—
Resolution / Max. Frame Rate	2MP / 60fps	—	—	—	—	—
WiseStream	WiseStream II	—	—	—	—	—
Streaming	Up to 10 Profiles	—	—	—	—	—
Edge Storage	SD/SDHC/SDXC	—	—	—	—	—
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	—	—	—	—	—
Operating Temperature	-10°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	—	—	—	—	—	—
Power Consumption	PoE : Max 6W 12VDC : Max 6.5W	—	—	—	—	—
Dimensions (WxHxD) / Weight	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)	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)
Additional Features	Handover, Hallway View	—	—	—	—	—

						
	XNO-6120R 2MP IR Bullet Camera	XNO-6085R 2MP IR Bullet Camera (extraLUX)	XNO-6080R 2MP IR Bullet Camera	XNO-9083R 4K AI IR Bullet Camera	XNO-8083R 6MP AI IR Bullet Camera	XNO-6123R 2MP AI IR Bullet Camera
Imaging Device	1/2.8" 2MP CMOS	1/2" 2.17MP CMOS	1/2.8" 2MP CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.8" CMOS
Min. Illumination	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.004Lux (F0.94) B/W : 0Lux (IR LED on)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour : 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour : 0.03Lux (F1.6, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps
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	CVBS : 1.0 Vp~p, Micro USB type B
Focal Length	5.2 ~ 62.4mm (Optical 12x)	4.1 ~ 16.4mm (Optical 4x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	5.2 ~ 62.4mm (12x) zoom
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 : 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 : 112.1°(Wide)~47.5°(Tele) V : 58.0°(Wide)~26.6°(Tele) D : 137.5°(Wide)~54.6°(Tele)	H : 112.1°(Wide)~47.5°(Tele) V : 58.0°(Wide)~26.6°(Tele) D : 137.5°(Wide)~54.6°(Tele)	H : 55° (Wide) ~ 5° (Tele) V : 35° (Wide) ~ 3° (Tele) D : 62° (Wide) ~ 6° (Tele)
Pan / Tilt / Rotate	—	—	—	—	—	—
IR Viewable Length	70m (229.66ft)	70m (229.66ft)	50m (164.04ft)	WiseIR 50m (164.04ft)	WiseIR 50m (164.04ft)	WiseIR 90m (295.28ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	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	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection
Business Intelligence	—	—	—	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	—
Alarm I/O	1 / 1	1 / 1	1 / 1	2 configurable I/O	2 configurable I/O	2 configurable I/O
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / 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	4K / 30fps	6MP / 30fps	2MP / 120fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream III	WiseStream III	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 10 profiles
Edge Storage	SD/SDHC/SDXC	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(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 -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)	-50°C ~ +60°C (-58°F ~ +140°F) NEMA TS-2 : 74°C * Start up above -30°C less than 95%RH(non-condensing) Humidity control /w GORE vent	-50°C ~ +60°C (-58°F ~ +140°F) NEMA TS-2 : 74°C * Start up above -30°C less than 95%RH(non-condensing) Humidity control /w GORE vent	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH (Non-condensing) * Start up above -30°C Maximum Temperature based on NEMA-TS 2 (2.2.7) : +74°C (+165°F) Humidity control /w GORE vent
Certification	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP66/IP67, NEMA4X, IK10	IP66/IP67, NEMA4X, IK10	IP66/67, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)
Power Consumption	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 12.95W	PoE : Max 12.95W 12VDC : Max 12W 24VAC : Max 15W	PoE+ : Max 22.5W, typical 17.9W 12VDC : Max 20.0W, typical 15.6W Power redundancy failover	PoE+ : Max 22.5W, typical 17.9W 12VDC : Max 20.0W, typical 15.6W Power redundancy failover	PoE+ : Max 19.5W, typical 15.5W 12VDC : Max 20.0W, typical 13.1W Power redundancy failover
Dimensions (WxHxD) / Weight	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 368.6mm (Ø3.58" x 14.51") 2.18Kg (4.81 lb)	Ø93.4 x 298.4mm (Ø3.68" x 11.75"), 2200g (4.85 lb)	Ø93.4 x 298.4mm (Ø3.68" x 11.75"), 2200g (4.85 lb)	Ø93.4 x 298.4mm (Ø3.68" x 11.75") 2.3kg (5.07 lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	



XNO-6083R
2MP AI IR Bullet Camera



XNO-C9083R
4K AI IR Bullet Camera



XNO-C8083R
6MP AI IR Bullet Camera



XNO-C7083R
4MP AI IR Bullet Camera



XNO-C6083R
2MP AI IR Bullet Camera



XNO-L6080R
2MP IR Bullet Camera

Imaging Device	1/2.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) B/W: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.038Lux(F1.4, 1/30sec, 30IRE) B/W: 0.0038Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour : 0.1Lux (F1.6) B/W: 0Lux (IR LED on)
Video Output	CVBS 1.0Vp~p, Micro USB type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	CVBS 1.0Vp~p, Micro USB type B
Focal Length	2.8~12mm(4.3x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	2.8~10mm(3.6x) motorized varifocal	2.8~12mm(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 : 112.1°(Wide)~47.5°(Tele) V : 58.0°(Wide)~26.6°(Tele) D : 137.5°(Wide)~54.6°(Tele)	H : 112.1°(Wide)~47.5°(Tele) V : 58.0°(Wide)~26.6°(Tele) D : 137.5°(Wide)~54.6°(Tele)	H : 109.7°(Wide)~30.4°(Tele) V : 62.8°(Wide)~17.8°(Tele) D : 131.3°(Wide)~35.3°(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	—	—	—	—	—	—
IR Viewable Length	—	40m(131.23ft)	40m(131.23ft)	40m(131.23ft)	40m(131.23ft)	30m(98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (150dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (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(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support
Analytics	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/ Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/ Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/ Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/ Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/ Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Intelligent analytics
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	2 configurable I/O	2 configurable I/O	2 configurable I/O	2 configurable I/O	—
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / 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 / 120fps	4K / 30fps	6MP / 30fps	4MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream III	WiseStream III	WiseStream III	WiseStream III	WiseStream III	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	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	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-50°C ~ +60°C (−58°F ~ +140°F) NEMA TS-2 : 74°C * Start up above -20°C less than 95%RH(non-condensing) Humidity control /w GORE vent	-40°C ~ +55°C (−40°F ~ +131°F) * Max temp : +60°C (intermittent) * Start up above -20°C NEMA TS-2 : 74°C 0~95%RH(non-condensing) Humidity control /w GORE vent	-40°C ~ +55°C (−40°F ~ +131°F) * Max temp : +60°C (intermittent) * Start up above -20°C NEMA TS-2 : 74°C 0~95%RH(non-condensing) Humidity control /w GORE vent	-40°C ~ +55°C (−40°F ~ +131°F) * Max temp : +60°C (intermittent) * Start up above -20°C NEMA TS-2 : 74°C 0~95%RH(non-condensing) Humidity control /w GORE vent	-40°C ~ +55°C (−40°F ~ +131°F) * Max temp : +60°C (intermittent) * Start up above -20°C NEMA TS-2 : 74°C 0~95%RH(non-condensing) Humidity control /w GORE vent	-40°C ~ +55°C (−40°F ~ +131°F)
Certification	IP66/IP67, NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP66, IK10
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10.0W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10.0W	PoE : Max. 11W
Dimensions (WxHxD) / Weight	Ø93.4 x 298.4mm (Ø3.68" x 11.75"), 2200g (4.85 lb)	Ø93.4 x 276.6mm (Ø3.68 x 10.89"), 1640g (3.62 lb)	Ø93.4 x 276.6mm (Ø3.68 x 10.89"), 1640g (3.62 lb)	Ø93.4 x 276.6mm (Ø3.68 x 10.89"), 1640g (3.62 lb)	Ø93.4 x 276.6mm (Ø3.68 x 10.89"), 1640g (3.62 lb)	Ø91 x 322.9mm (Ø3.58" x 12.71") 1.29Kg (4.25 lb)
Additional Features	Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View, ANPR camera for FF Group software (/FSNP option with Serverless ANPR Out of Box)



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



XND-6081VZ
2MP Dome Camera



XND-6081FZ
2MP Flush Mount Dome Camera

Imaging Device	1/2.8" 2MP CMOS	1/2" 2.17MP 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) (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)	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	Micro USB type B	Micro USB type B
Focal Length	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	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	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)	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°	± 175° / 0 ~ 85° / ± 175° (Remote)	± 175° / 0 ~ 85° / ± 175° (Remote)
IR Viewable Length	20m (65.62ft) (XNO-6010R) 30m (98.43ft) (XNO-6020R)	—	—	—	—	—
Day & Night	Auto (ICR)	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	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
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	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	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), 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	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	Micro SD/SDHC/SDXC	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, 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 ~ +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)	-25°C ~ +60°C (−13°F ~ +140°F)	-25°C ~ +60°C (−13°F ~ +140°F)
Certification	IP67, IP66, NEMA 4X, IK10	IK08	IP52, IK10	IP52, Plenum rate	IP52, IK10	IP52, Plenum rate
Power Consumption	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	PoE : Max 10W 12VDC : Max 8.5W	PoE : Max 10W 12VDC : Max 8.5W
Dimensions (WxHxD) / Weight	Ø70 x 301.5mm (Ø2.76" x 11.87") 1.22Kg (2.69 lb) (XNO-6010R) Ø70 x 296mm (Ø2.76" x 11.65") 1.22kg (2.69 lb) (XNO-6020R)	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)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.85kg (4.08lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Modular structure, Anti dust	Modular structure, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust

						
	XND-6081REV 2MP IR PoE Extender Camera	XND-6081RV 2MP IR Dome Camera	XND-6081RF 2MP Flush Mount IR Dome Camera	XND-9083RV 4K AI IR Dome Camera	XND-8093RV 6MP AI IR Dome Camera	XND-8083RV 6MP AI IR Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Colour: 0.015Lux (F1.4, 1/30sec) B/W: 0 Lux (IR LED on)	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.06Lux(F1.7, 1/30sec, 30IRE) BW: 0.006Lux(F1.7, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 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	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	4.4~9.3mm(2.1x) motorized varifocal	10.9~29mm(2.7x) motorized varifocal	4.4~9.3mm(2.1x) 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: 112.1°(Wide)~47.5°(Tele) V: 58.0°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(Tele)	H: 42.0°(Wide)~15.0°(Tele) V: 22.8°(Wide)~8.4°(Tele) D: 48.7°(Wide)~17.1°(Tele)	H: 112.1°(Wide)~47.5°(Tele) V: 58.0°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0°~360° / -45°~85° / 0° ~ 355°	0°~360° / -45°~85° / 0° ~ 355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°
IR Viewable Length	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	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	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Off / On (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, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, 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	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	2 configurable I/O	2 configurable I/O	2 configurable I/O
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	4K / 30fps	6MP / 30fps	6MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream III	WiseStream III	WiseStream III
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (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	-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 ~ 50°C (-13°F ~ +122°F) * Max temp : +55°C (intermittent) less than 95% RH(non-condensing) Humidity control /w GORE vent	-25°C ~ 50°C (-13°F ~ +122°F) * Max temp : +55°C (intermittent) less than 95% RH(non-condensing) Humidity control /w GORE vent	-25°C ~ 50°C (-13°F ~ +122°F) * Max temp : +55°C (intermittent) less than 95% RH(non-condensing) Humidity control /w GORE vent
Certification	IP52, IK10	IP52, IK10	IP52, Plenum rate	IP52, IK10	IP52, IK10	IP52, IK10
Power Consumption	PoE+: Max 25.5W (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	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover
Dimensions (WxHxD) / Weight	Ø 160 x 125mm (6.30" x 4.92") 1.45kg (3.20lb)	Ø 160 x 125mm (Ø 6.30" x 4.92") 1.45kg (3.2lb)	Ø 205 x 155mm (Ø 8.07" x 6.10") 1.80kg (3.97lb)	Ø 160 x 125mm (6.30" x 4.92"), 1600g (3.53 lb)	Ø 160 x 125mm (6.30" x 4.92"), 1600g (3.53 lb)	Ø 160 x 125mm (6.30" x 4.92"), 1600g (3.53 lb)
Additional Features	Modular structure, PoE out: Max 12.95W at 80 meters using CAT5/SE cable	Modular design, Anti dust	Modular design, Anti dust	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

						
	XND-6083RV 2MP AI IR Dome Camera	XND-C9083RV 4K AI IR Dome Camera	XND-C8083RV 6MP AI IR Dome Camera	XND-C7083RV 4MP AI IR Dome Camera	XND-C6083RV 2MP AI IR Dome Camera	XND-6080/6080V 2MP Dome Camera
Imaging Device	1/2.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) B/W: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.038Lux(F1.4, 1/30sec, 30IRE) B/W: 0.0038Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)
Video Output	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	Micro USB type B	Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.8~12mm(4.3x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	2.8~10mm(3.6x) motorized varifocal	2.8~12mm(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: 112.1°(Wide)~47.5°(Tele) V: 58.0°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(Tele)	H: 112.1°(Wide)~47.5°(Tele) V: 58.0°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(Tele)	H: 109.7°(Wide) ~ 30.4°(Tele) V: 60.8°(Wide) ~ 17.8°(Tele) D: 131.3°(Wide) ~ 35.3°(Tele)	H: 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°~360° / -45°~85° / 0°~355°	0°~360° / -45°~75° / 0°~355°	0°~360° / -45°~75° / 0°~355°	0°~360° / -45°~75° / 0°~355°	0°~360° / -45°~75° / 0°~355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	50m (164.04ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (150dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (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
Analytics	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	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	People counting, Queue management, Heatmap	-
Alarm I/O	2 configurable I/O	2 configurable I/O	2 configurable I/O	2 configurable I/O	2 configurable I/O	1 / 1
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Line out	Selectable (mic in/line in), Line out	Selectable (mic in/line in), Line out	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 / 120fps	4K / 30fps	6MP / 30fps	4MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream III	WiseStream III	WiseStream III	WiseStream III	WiseStream III	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (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	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-25°C ~ 50°C (-13°F ~ +122°F) * Max temp : +55°C (intermittent) less than 95% RH(non-condensing) Humidity control /w GORE vent	-10°C ~ 50°C (14°F ~ +122°F) * Max temp : +55°C (intermittent) 0~95% RH(non-condensing) Humidity control /w GORE vent	-10°C ~ 50°C (14°F ~ +122°F) * Max temp : +55°C (intermittent) 0~95% RH(non-condensing) Humidity control /w GORE vent	-10°C ~ 50°C (14°F ~ +122°F) * Max temp : +55°C (intermittent) 0~95% RH(non-condensing) Humidity control /w GORE vent	-10°C ~ 50°C (14°F ~ +122°F) * Max temp : +55°C (intermittent) 0~95% RH(non-condensing) Humidity control /w GORE vent	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP52, IK10	IP52, IK08	IP52, IK08	IP52, IK08	IP52, IK08	IK08
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10.0W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10.0W	PoE: Max 6.5W 12VDC: Max 6W
Dimensions (WxHxD) / Weight	Ø 160 x 125mm (6.30" x 4.92"), 1600g (3.53 lb)	Ø 160 x 118mm(Ø 6.30" x 4.65"), 1350g (2.98 lb)	Ø 160 x 118mm(Ø 6.30" x 4.65"), 1350g (2.98 lb)	Ø 160 x 118mm(Ø 6.30" x 4.65"), 1350g (2.98 lb)	Ø 160 x 118mm(Ø 6.30" x 4.65"), 1350g (2.98 lb)	Ø 140.8 x 113.0mm (Ø 5.54" x 4.45") 610g (1.34lb) (XND-6080) 714g (1.57lb) (XND-6080V)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View



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



XNV-6120
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 : 0.015Lux (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)	Colour : 0.03Lux (F1.6), B/W : 0.003Lux (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	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	3.2 ~ 10mm (3.1x) motorized varifocal	4mm fixed	2.8mm fixed	2.4mm fixed	5.2 ~ 62.4mm (Optical 12x)
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 : 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°	H : 54.58° (Wide) ~ 5.30° (Tele) / V : 32.19° (Wide) ~ 3.00° (Tele) / D : 61.40° (Wide) ~ 6.06° (Tele)
Pan / Tilt / Rotate	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°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)	30m (98.42ft)	30m (98.43ft)	—	—	—
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	120dB	150dB	—	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support	Support	Support	Support (Built-in Gyro sensor)
Analytics	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	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	Built-in mic / —	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	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 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	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, 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	-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)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)
Certification	IK08	IK08	IK08	—	IK08	IP67, IP66, NEMA 4X, IK10
Power Consumption	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	PoE : Max 7.8W, 12V DC : Max 7W, 24V AC : Max. 8.2W
Dimensions (WxHxD) / Weight	Ø 140.8 x 113.0mm (Ø 5.54" x 4.45") 624g (1.38lb) (XND-6080R) 724g (1.60lb) (XND-6080RV)	Ø 140.8 x 113.0mm (Ø 5.54" x 4.45") 580g (1.28 lb) (XND-L6080R) 690g (1.52 lb) (XND-L6080RV)	Ø 110.0 x 90.0mm (Ø 4.33" x 3.54") 380g (0.84 lb)	Ø 98.9 x 129mm (Ø 3.89" x 5.08") 275g (0.61 lb)	Ø 140.8 x 113.0mm (Ø 5.54" x 4.45") 610g (1.34 lb)	Ø 160.0 x 128.5mm (Ø 6.30" x 5.06") 985g (2.17 lb)
Additional Features	Handover, Hallway View	Defog, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View



XNV-6120R
2MP IR Vandal Dome Camera



XNV-6123R
2MP AI IR Vandal Dome Camera



XNV-6120RS
2MP Stainless IR Vandal Dome Camera



XNV-6085
2MP Vandal Dome Camera
(extraLUX)



XNV-6081Z
2MP Vandal Dome Camera



XNV-6081RE
2MP IR Vandal Dome Camera

Imaging Device	1/2.8" 2MP CMOS	1/2.8" 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 : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	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 : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS : 1.0 Vp-p, Micro USB type B	CVBS 1.0Vp-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 (12x) zoom	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 : 55° (Wide) ~ 5° (Tele) V : 33° (Wide) ~ 3° (Tele) D : 62° (Wide) ~ 6° (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° ~ 360° / -45° ~ 80° / 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)	WiseIR 90m (295.28ft)	70m (229.66ft)	—	—	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	extremeWDR (150dB)	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	WiseNR II (Based on AI engine), 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	Object detection (Person/Face/Vehicle/ License plate), Vehicle detection (Type: car/bus/truck/motorcycle/ bicycle), IVA (Virtual line/Area, Enter/ Exit, Loitering, Direction, Appear/ Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification
Business Intelligence	—	—	—	—	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	2 configurable I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	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 / 120fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II, WiseStream III	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	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/MSUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/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 ~ +60°C (-40°F ~ +140°F) / Less than 95% RH (Non-condensing) * Start up above -30°C Maximum Temperature based on NEMA-TS 2 (2.2.7) : +74°C (+165°F) Humidity control /w GORE vent	-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 above -35°C (-35°F)
Certification	IP67, IP66, NEMA 4X, IK10	IP66/IP67/IP6K9K, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9), IK10+	IP66, NEMA 4X, IK10+	IP67, IP66, NEMA 4X, IK10	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X
Power Consumption	PoE : Max. 12.95W, 12V DC : Max. 11.5W, 24V AC : Max. 14W	PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover	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	Ø 160.0 x 128.5mm (Ø 6.30" x 5.06") 995g (2.19 lb)	Ø 180 x 138mm (Ø 7.09" x 5.43") 2.13kg (4.70 lb)	Ø 162 x 134.5mm (Ø 6.38" x 5.3") 2.7Kg (5.95 lb)	Ø 160.0 x 140.0mm (Ø 6.30" x 5.51") 1.40kg (3.09 lb)	Ø 180 x 125mm (Ø 7.1" x 4.9") 1.75kg (3.86lb)	Ø 180 x 125mm (7.09" x 4.92") 1.75 kg (3.86 lb)
Additional Features	Handover, Hallway View	Handover, Hallway View, SUS316L	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

						
	XNV-C9083R 4K AI IR Vandal Dome Camera	XNV-C8083R 6MP AI IR Vandal Dome Camera	XNV-C7083R 4MP AI IR Vandal Dome Camera	XNV-C6083R 2MP AI IR Vandal Dome Camera	XNV-9083R 4K AI IR Vandal Dome Camera	XNV-8093R 6MP AI IR Vandal Dome Camera
Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) B/W: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.038Lux(F1.4, 1/30sec, 30IRE) B/W: 0.0038Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.06Lux(F1.7, 1/30sec, 30IRE) BW: 0.006Lux(F1.7, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Output	Micro USB type B	Micro USB type B	Micro USB Type B	Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4.4~9.3mm(2.1x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	2.8~10mm(3.6x) motorized varifocal	2.8~12mm(4.3x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	10.9~29mm(2.7x) motorized varifocal
Angular Field of View	H: 112.1°(Wide)~47.5°(Tele) V: 58.0°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(Tele)	H: 112.1°(Wide)~47.5°(Tele) V: 58.0°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(Tele)	H: 109.7°(Wide)~30.4°(Tele) V: 60.8°(Wide)~17.8°(Tele) D: 131.3°(Wide)~35.3°(Tele)	H: 119.5°(Wide)~27.9°(Tele) V: 62.8°(Wide)~8.4°(Tele) D: 142.1°(Wide)~32.0°(Tele)	H: 112.1°(Wide)~47.5°(Tele) V: 58.0°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(Tele)	H: 42.0°(Wide)~15.0°(Tele) V: 22.8°(Wide)~8.4°(Tele) D: 48.7°(Wide)~17.1°(Tele)
Pan / Tilt / Rotate	0°~360° / -45°~75° / 0°~355°	0°~360° / -45°~75° / 0°~355°	0°~360° / -45°~75° / 0°~355°	0°~360° / -45°~75° / 0°~355°	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)	50m(164.04ft)	70m(229.66ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
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	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, 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	People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O	2 configurable I/O	2 configurable I/O	2 configurable I/O	2 configurable I/O	2 configurable I/O
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / 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	4K / 30fps	6MP / 30fps	4MP / 60fps	2MP / 60fps	4K / 30fps	6MP / 30fps
WiseStream	WiseStream III	WiseStream III	WiseStream III	WiseStream III	WiseStream III	WiseStream III
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (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	ONVIF Profile S/G/T, SUNAPI (HTTP API), Wisenet open platform
Operating Temperature	-40°C~-+55°C(-40°F~+131°F) * Max temp : +60°C (intermittent) * Start up above -20°C NEMA TS-2 : 74°C 0~95%RH(non-condensing) Humidity control /w GORE vent	-40°C~-+55°C(-40°F~+131°F) * Max temp : +60°C (intermittent) * Start up above -20°C NEMA TS-2 : 74°C 0~95%RH(non-condensing) Humidity control /w GORE vent	-40°C~-+55°C(-40°F~+131°F) * Max temp : +60°C (intermittent) * Start up above -20°C NEMA TS-2 : 74°C 0~95%RH(non-condensing) Humidity control /w GORE vent	-40°C~-+55°C(-40°F~+131°F) * Max temp : +60°C (intermittent) * Start up above -20°C NEMA TS-2 : 74°C 0~95%RH(non-condensing) Humidity control /w GORE vent	-50°C~-+55°C(-58°F~+131°F) * Max temp : +60°C (intermittent) NEMA TS-2 : 74°C * Start up above -30°C less than 95%RH(non-condensing) Humidity control /w GORE vent	-50°C~-+55°C(-58°F~+131°F) * Max temp : +60°C (intermittent) NEMA TS-2 : 74°C * Start up above -30°C less than 95%RH(non-condensing) Humidity control /w GORE vent
Certification	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP66/IP67/IP6K9K, NEMA4X, IK10+
Power Consumption	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10.0W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10.0W	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover
Dimensions (WxHxD) / Weight	Ø 160 x 118mm (Ø6.30" x 4.65"), 1450g (3.20lb)	Ø 160 x 118mm (Ø6.30" x 4.65"), 1450g (3.20lb)	Ø 160 x 118mm (Ø6.30" x 4.65"), 1450g (3.20lb)	Ø 160 x 118mm (Ø6.30" x 4.65"), 1450g (3.20lb)	Ø 180 x 125mm (7.09" x 4.92"), 1900g (4.19lb)	Ø 180 x 125mm (7.09" x 4.92"), 1900g (4.19lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

						
	XNV-8083R 6MP AI IR Vandal Dome Camera	XNV-6083R 2MP AI IR Vandal Dome Camera	XNV-6081R 2MP IR Vandal Dome Camera	XNV-6081 2MP Vandal Dome Camera	XNV-6080 2MP Vandal Dome Camera	XNV-6080R 2MP IR Vandal Dome Camera
Imaging Device	1/1.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	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)
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	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4.4~9.3mm(2.1x) 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	2.8~12mm (4.3x) motorized varifocal
Angular Field of View	H: 112.1°(Wide)~47.5°(Tele) V: 58.0°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(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: 119.5° (Wide) ~ 27.9° (Tele) / V: 62.8° (Wide) ~ 15.7° (Tele) / D: 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0 ° ~ 360° / -45° ~ 85° / 0 ° ~ 355°	0 ° ~ 360° / -45° ~ 85° / 0 ° ~ 355°	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)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (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	Support
Analytics	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection	Object detection (Person/Face/ Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Appear/Disappear, Intrusion), Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, 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	People counting, Queue management, Heatmap	-	-
Alarm I/O	2 configurable I/O	2 configurable I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	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	6MP / 30fps	2MP / 120fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream III	WiseStream III	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API), Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-50°C~-+55°C(-58°F~+131°F) * Max temp : +60°C (intermittent) NEMA TS-2 : 74°C * Start up above -30°C less than 95%RH(non-condensing) Humidity control /w GORE vent	-50°C~-+55°C(-58°F~+131°F) * Max temp : +60°C (intermittent) NEMA TS-2 : 74°C * Start up above -30°C less than 95%RH(non-condensing) Humidity control /w GORE vent	-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)
Certification	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover	PoE : Max 7.0W 12VDC: Max 5.4W 24VAC : Max 7.1W	PoE : Max 7.0W 12VDC: Max 5.4W 24VAC : Max 8.2W	PoE : Max 7.8W 12VDC: Max 7W 24VAC : Max 8.2W	PoE : Max 12.95W 12VDC: Max 11.5W 24VAC : Max 14W
Dimensions (WxHxD) / Weight	Ø 180 x 125mm (7.09" x 4.92"), 1900g (4.19lb)	Ø 180 x 125mm (7.09" x 4.92"), 1900g (4.19lb)	Ø 180 x 125mm (Ø 7.1" x 4.9") 1.75kg (3.86lb)	Ø 180 x 125mm (Ø 7.1" x 4.9") 1.45kg (3.20lb)	Ø 160.0 x 118.5mm (Ø6.30" x 4.67") 985g (2.17 lb)	Ø 160.0 x 118.5mm (Ø6.30" x 4.67") 995g (2.19 lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Modular structure	Modular structure	Handover, Hallway View	Handover, Hallway View



XNV-6080RSA
2M Stainless IR Dome Camera



XNV-L6080
2MP Vandal Dome Camera



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

Imaging Device	1/2.8" 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, 1/30sec) BW: 0Lux(IR LED on)	Colour: 0.1Lux (F1.6) B/W: 0.01Lux (F1.6)	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)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B,	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB Type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal	3.6mm fixed	4mm fixed	2.8mm 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: 109.0° (Wide) ~ 33.2° (Tele) / V: 57.4° (Wide) ~ 18.7° (Tele) / D: 132.0° (Wide) ~ 38.0° (Tele)	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°
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	± 5° / 0° ~ 67° / ± 90°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	± 5° / ± 10° / ± 90°
IR Viewable Length	50m (164.04ft)	–	30m (98.43ft)	15m (49.21ft)	30m (98.43ft)	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)
Wide Dynamic Range	150dB	120dB	120dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics, Audio detection Sound classification (w/ external MIC)	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification
Business Intelligence	–	–	–	–	People counting, Queue management, Heatmap	–
Alarm I/O	1 / 1	–	–	–	1 / 1	–
Audio I/O	Selectable (mic in/line in) / Line out	–	–	Selectable (mic in/line in), Built-in mic / Line out	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 5 Profiles	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC 2slot 512GB	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/ SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	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) / Less than 90% RH	–40°C ~ +55°C (–40°F ~ +131°F)	–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)
Certification	IP66, IP6K9K, NEMA4X, IK10+	IP66, IK10	IP66, IK10	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP67, IP6K9K, IK10, NEMA4X
Power Consumption	PoE: Max 12.95W 12VDC: Max 11.5W 24VAC: Max 14W	PoE: Max 8W	PoE: Max 11W	PoE: Max 6.70W	PoE: Max 9W 12V DC: Max 8W	PoE: Max 7.20W
Dimensions (WxHxD) / Weight	Ø 162x120.5mm (Ø 6.38x4.74") 2.8kg(6.17lb)	Ø 160.0 x 118.5mm (Ø 6.3" x 4.67") 940g (2.1 lb)	Ø 160.0 x 118.5mm (Ø 6.30" 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)	Ø 120.0 x 97.5mm (Ø 4.72" 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)
Additional Features		Handover, Hallway View	Handover, Hallway View	M12 Connector (XNV-6022RM) Handover, Hallway View	Handover, Hallway View	M12 Connector Handover, Hallway View



XNV-6012M/6012
2MP Mobile Flat Camera



XNV-6011
2MP Vandal Dome Camera



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

Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.04Lux (F2.0) B/W: 0.04Lux (F2.0)	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Colour: 0.055Lux (F2.0) B/W: 0.0055Lux (F2.0)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec)
Video Output	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	–	–	–
Focal Length	2.4mm fixed	2.8mm fixed	2.4mm fixed	5~150mm(30x) zoom	5~125mm(25x) zoom	5~125mm(25x) zoom
Angular Field of View	H: 135.4° / V: 71.2° / D: 161.6°	H: 112° / V: 62° / D: 130°	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)
Pan / Tilt / Rotate	± 5° / 0° ~ 67° / ± 90°	0° ~ 353° / 0° ~ 59° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	360 ° Endless / 110 ° (–20 ° ~ 90 °)	360 ° Endless / 10 ° (–20 ° ~ 90 °)	360 ° Endless / 110 ° (–20 ° ~ 90 °)
IR Viewable Length	–	–	–	200m(656.17ft), Wise IR	200m(656.17ft), Wise IR	–
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)
Wide Dynamic Range	150dB	150dB	150dB	Extreme WDR (120dB)	Extreme WDR (120dB)	Extreme WDR (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)	Support(built-in gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification (w/ external MIC)	Intelligent analytics	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	–	People counting, Queue management, Heatmap	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)
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	–	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)
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	–	4MP / 30fps	4MP / 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	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF Profile S/G/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	–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)	Normal : –40°C~+55° (–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~+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)
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)
Power Consumption	PoE: Max 6.50W	PoE: Max 6.50W	PoE: Max 6W / 12V DC: Max 5.5W	HPoE(Camera only): Max 42W	Typical 20W, Max 40W	Typical 20W, Max 25W
Dimensions (WxHxD) / Weight	98.9 x 52.0 x 100.0mm (3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø 112.8 x 63.7mm (Ø 4.44" x 2.51") 420g (0.93 lb)	Ø 120.0 x 97.5mm (Ø 4.72" x 3.84") 625g (1.38 lb)	Ø 184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)	Ø 158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)	Ø 158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)
Additional Features	M12 Connector (XNV-6012M) Handover, Hallway View	Handover, Hallway View	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

	X PTZ PLUS	X PTZ PLUS	X PTZ PLUS		X PTZ PLUS	X PTZ PLUS
	 XNP-8300RW 6MP Network 30x IR PTZ – built-in wiper	 XNP-8250R 6MP Network 25x IR PTZ Camera	 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
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" 2MP CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	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)
Video Output	–	–	–	CVBS 1.0 Vp–p	–	–
Focal Length	5~150mm(30x) zoom	5~125mm(25x) zoom	5~125mm(25x) zoom	4.75 ~ 261.4mm (55x) zoom	4.25~170mm(40x) zoom	4.25~170mm(40x) zoom
Angular Field of View	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: 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)
Pan / Tilt / Rotate	360 ° Endless / 110 ° (–20 ° ~90 °)	360 ° Endless / 110 ° (–20 ° ~90 °)	360 ° Endless / 110 ° (–20 ° ~90 °)	360° Endless / 95° (–5° ~ 90°) / –	360 ° Endless / 110 ° (–20 ° ~90 °)	360 ° Endless / 110 ° (–20 ° ~90 °)
IR Viewable Length	200m(656.17ft), Wise IR	200m(656.17ft), Wise IR	–	500m (1,640.42ft)	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	Extreme WDR (120dB)	Extreme WDR (120dB)	Extreme WDR (120dB)	120dB	Extreme WDR (150dB)	Extreme WDR (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	Intelligent analytics	Intelligent analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics	Intelligent analytics
Business Intelligence	–	–	–	–	–	–
Alarm I/O	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)	4 / 2	4 selectable (available with SPM-4210)	4 selectable (available with SPM-4210)
Audio I/O	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	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	–	6MP / 30fps	6MP / 30fps	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/SDH C/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDH C/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, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform
Operating Temperature	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)	–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)
Certification	IP66, IK10, NEMA4X, NEMA–TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA–TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA–TS 2(2.2.8, 2.2.9)	IP66, IK10	IP66, IK10, NEMA4X, NEMA–TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA–TS 2(2.2.8, 2.2.9)
Power Consumption	HPoE(Camera only): Max 42W	Typical 20W, Max 40W	Typical 20W, Max 25W	HPoE : 60W 24VAC : Max 92W	HPoE(Camera only): Max 42W	Typical 20W, Max 40W
Dimensions (WxHxD) / Weight	Ø 184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)	Ø 158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)	Ø 158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)	Ø 236.9 x 407.7mm (Ø 9.33" x 16.05") 7.1Kg (15.65 lb)	Ø 184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)	Ø 158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)
Additional Features	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	Built–in wiper, Object auto tracking(Person/Vehicle), Target lock tracking	Object auto tracking(Person/Vehicle), Target lock tracking

	X PTZ PLUS					
	 XNP-6400 2MP Network 40x PTZ Camera	 XNP-6371RH 2MP 37x IR PTZ Camera	 XNP-6321H / XNP-6321 2M 32x Network PTZ Dome Camera	 XNP-6320H/6320 2MP PTZ Camera	 XNP-6120H 2MP 12x PTZ Camera	 XNP-6040H 2MP 4.3x PTZ Camera
Imaging Device	1/2.8" CMOS	1/1.9" 2MP CMOS	1/2.8" 2.4M 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, 1/30sec) BW: 0.005Lux(IR LED On)	Colour : 0.05Lux (F1.5) 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 : 0.03Lux (F1.6) B/W: 0.003Lux (F1.6)	Colour : 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)
Video Output	–	CVBS 1.0 Vp–p	CVBS : 1.0 Vpp	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	4.25~170mm(40x) zoom	6 ~ 222mm (37x) zoom	4.44 ~ 142.6mm (Optical 32x)	4.44 ~ 142.6mm (32x) zoom	5.2 ~ 62.4mm (12x) zoom	2.8 ~ 12mm (4.3x) zoom
Angular Field of View	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)	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 / 110 ° (–20 ° ~90 °)	360° Endless / 190° (–5° ~ 185°) / –	360 ° Endless / 210 ° (–15 ° ~ 195 °)	360° Endless / 210° (–15° ~ 195°) / –	360° Endless / 190° (–5° ~ 185°) / –	0° ~ 355° / 0° ~ 90°
IR Viewable Length	–	350m (1,148.29ft)	–	–	–	–
Day & Night	Auto(ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	Extreme WDR (150dB)	120dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNR	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	Intelligent analytics, Audio 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	Intelligent analytics, Audio detection, Sound classification
Business Intelligence	–	–	–	–	–	–
Alarm I/O	4 selectable (available with SPM-4210)	4 / 2	4 / 2	4 / 2	1 / 1	1 / 1
Audio I/O	1/1 (available with SPM-4210)	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	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 3 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	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(HTTP API), Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	–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)	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)	–30°C ~ +55°C (–22°F ~ +131°F)	–30°C ~ +55°C (–22°F ~ +131°F)
Certification	IP66, IK10, NEMA4X, NEMA–TS 2(2.2.8, 2.2.9)	IP66, IK10	IP66, IK10 (XNP-6321H) / IK10	IP66, IK10 (XNP-6320H) IK10 (With SHP-3701H) (XNP-6320)	IP66, IK10	IP66, IK10
Power Consumption	Typical 20W, Max 25W	24VAC : Max 90W	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)	PoE, 12VDC : Max 12W	PoE : Max 9.6W 12VDC : Max 8.6W
Dimensions (WxHxD) / Weight	Ø 158x293.3mm (6.22x11.55") 3.2Kg(7.05lb)	Ø 236.9 x 407.7mm (Ø 9.33" x 16.05") 7.1Kg (15.65 lb)	Ø 223.4 x 293.6mm (8.8" x 11.56") (XNP-6321H) Ø 152.0 x 218.0mm (5.98" x 8.58") (XNP-6321)	Ø 220 x 293.6mm (Ø 8.66" x 11.56") 3.3Kg (7.28 lb) (XNP-6320H) Ø 152 x 218mm (Ø 5.98" x 8.58") 1.7Kg (3.75 lb) (XNP-6320)	Ø 168.0 x 161.5mm (Ø 6.61" x 6.36") 1.9kg (4.19 lb)	Ø 136.1 x 106.1mm (Ø 5.36" x 4.18") 0.78 kg (1.72 lb)
Additional Features	Object auto tracking (Person/Vehicle), Target lock tracking	Defog, Auto tracking	Defog	Defog, Auto tracking	Defog, Auto tracking	Defog, Auto tracking

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.

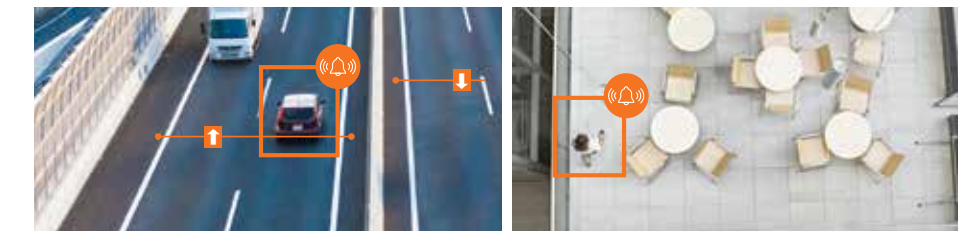


Defocus Detection

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 Q mini

SMALL YET POWERFUL

Perfectly blends into any environment.

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

	 QNB-8002 5MP Box Camera	 QNO-8080R 5MP IR Bullet Camera	 QNO-8010R/8020R 5MP IR Bullet Camera	 QND-8080R 5MP IR Dome Camera	 QND-8010R/8020R/8030R 5MP IR Dome Camera	 Q mini QND-8011/8021 5MP 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	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)	Colour : 0.15Lux (F2.0) (QND-8011) Colour : 0.15Lux (F1.6)
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	Micro HDMI
Focal Length	–	3.2 ~ 10mm (3.1x) motorized varifocal	2.8mm fixed (QNO-8010R) 4.0mm fixed (QNO-8020R)	3.2 ~ 10mm (3.1x) motorized varifocal	2.8mm fixed (QND-8010R) 4.0mm fixed (QND-8020R) 6.0mm fixed (QND-8030R)	2.8mm fixed (QND-8011) 4mm fixed (QND-8021)
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 : 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)	H : 104.4° / V : 76.7° / D : 136.1° (QND-8011) H : 80.1° / V : 58.0° / D : 105.8° (QND-8021)
Pan / Tilt / Rotate	–	–	–	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°
IR Viewable Length	–	30m (98.43ft)	20m (65.62ft) (QNO-8010R) 25m (82.02ft) (QNO-8020R)	20m (65.62ft)	20m (65.62ft)	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–	–	–	–
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	–	–	–	–	–	People counting
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	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 3 Profiles	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	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	–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)	–10°C ~ +40°C (+14°F ~ +104°F)
Certification	–	IP66, IK10	IP66, IK10	–	–	IP42, IK08
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)	PoE : Max 5W, typical 4W
Dimensions (WxHxD) / Weight	Ø73.8 x 66.6 x 136.2mm (Ø2.91" x 2.62" x 5.36") 320g (0.71lb)	Ø91 x 322.9mm (Ø3.58" x 12.71") 1190g (2.624lb)	Ø70.0 x 246.0mm (Ø2.76" x 9.69") 680g (1.499lb)	Ø120.3 x 102.0mm (Ø4.74" x 4.02") 430g (0.948lb)	Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb)	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	Super compact design, Hallway View

	 QNV-8080R 5MP IR Vandal Dome Camera	 QNV-8010R/8020R 5MP IR Vandal Dome Camera	 QNE-8011R/8021R 5MP IR Flateye Camera	 QNF-9010 12MP Network Fisheye Camera	 QNF-8010 6MP Fisheye Camera	 QNO-7082R 4MP IR Bullet Camera
Imaging Device	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.3" 12MP CMOS	1/1.8" 6MP CMOS	1/3" CMOS
Min. Illumination	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: 0.39 Lux (F2.2, 1/30sec)	Colour: 0.2 Lux (F2.5, 1/30sec)	Colour : 0.1Lux (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	CVBS : 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	2.8mm fixed (QNV-8010R) 4.0mm fixed (QNV-8020R)	2.8mm fixed (QNE-8011R) 4.0mm fixed (QNE-8021R)	1.08mm fixed focal	1.14mm fixed focal	3.2~10mm (3.1x) motorized varifocal
Angular Field of View	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 : 104.4° / V : 76.7° / D : 136.1° (QNE-8011R) H : 80.1° / V : 58.0° / D : 105.8° (QNE-8021R)	H: 187° / V: 187° / D: 187°	H: 187° / V: 187° / D: 187°	H : 98.6° (Wide) ~ 30.8° (Tele) V : 52.3° (Wide) ~ 17.3° (Tele) D : 115.7° (Wide) ~ 35.3° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 75° / 0° ~ 360°	—	—	—
IR Viewable Length	30m (98.42ft)	20m (65.62ft) (QNV-8010R) 25m (82.02ft) (QNV-8020R)	20m (65.62ft)	—	—	30m (98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (Electrical)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNRV	SSNRV	SSNR
Digital Image Stabilization	—	—	—	—	—	—
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Defocus detection, Motion detection, Tampering	Defocus detection, Motion detection, Tampering	Intelligent analytics
Business Intelligence	—	—	—	People counting, Heatmap	People counting, Heatmap	—
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: Main/High, MJPEG	H.265, H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	12MP / 30fps	6MP / 30fps	4MP / 30fps
WiseStream	WiseStream II	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	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	Micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, 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)
Operating Temperature	−30°C ~ +55°C (−22°F ~ +131°F) * Start up above −20°C (−4°F)	−30°C ~ +55°C (−22°F ~ +131°F) * Start up above −20°C (−4°F)	−30°C ~ +55°C (−22°F ~ +131°F) * Start up above −20°C (−4°F)	−10°C ~ +40°C (+14°F ~ +104°F) / Less than 90% RH	−10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	−40°C ~ +55°C (−40°F ~ +131°F) / Less than 95% RH * Start up above −30°C
Certification	IP66, IK10	IP66, IK10	IP67, IK10	IP42	IP42	IP66, IK10
Power Consumption	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 7.7W, typical 6.4W	PoE: Max 6.4W, typical 4.6W	PoE: Max 11.4W, typical 8W 12VDC: Max 9.6W, typical 7W
Dimensions (WxHxD) / Weight	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)	Ø99x49mm (Ø3.9x1.93") 370g	Ø99x49mm (Ø3.9x1.93") 320g (0.705 lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") 900g (1.984 lb)
Additional Features	Hallway View	Hallway View	Hallway View	Super compact design	Super compact design	Defocus detection, Directional detection, Motion detection, Enter/ Exit, Tampering, Virtual line

	 QNO-7032R 4MP IR Bullet Camera	 QNO-7022R 4MP IR Bullet Camera	 QNO-7012R 4MP IR Bullet Camera	 QNV-7082R 4MP Network IR Vandal Dome Camera	 QNV-7022R/7012R 4MP IR Vandal Dome Camera	 QNV-7032R 4MP IR Vandal Dome Camera
Imaging Device	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/3" CMOS
Min. Illumination	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F1.6, 1/30sec) (XNV-7022R) Colour : 0.15Lux (F2.0, 1/30sec) (XNV-7012R) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	6mm fixed focal	4mm fixed focal	2.8mm fixed focal	3.2~10mm(3.1x) motorized varifocal	4mm fixed focal (XNV-7022R) 2.8mm fixed focal (XNV-7012R)	6mm fixed focal
Angular Field of View	H : 49° V : 27.6° D : 55.6°	H : 78.2° V : 41.2° D : 92°	H : 107.5° V : 59.7° D : 122°	H : 98.6(Wide) ~ 30.8(Tele), V : 52.3(Wide) ~ 17.3(Tele), D : 115.7(Wide) ~ 35.3(Tele)	H : 78.2, V : 41.2, D : 92.0 (XNV-7022R) H : 107.5, V : 59.7, D : 122.0 (XNV-7012R)	H : 49° / V : 27.6° / D : 55.6°
Pan / Tilt / Rotate	—	—	—	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.42ft)	25m (82.02ft)	20m (65.62ft)	30m(98.42ft)	25m (82.02ft) (XNV-7022R) 20m (65.62ft) (XNV-7012R)	30m (98.42ft)
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	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	—	—	—	—	—	—
Analytics	Intelligent analytics	Intelligent analytics	Intelligent 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
Business Intelligence	—	—	—	—	—	—
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / —	Selectable (mic in/line in) / —	Selectable (mic in/line in) / —	Line in	Selectable(mic in/line in)	Selectable (mic in/line in) / —
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	4MP / 30fps	4MP / 30fps	4MP / 30fps	4MP / 30fps	4MP / 30fps	4MP / 30fps
WiseStream	WiseStream II	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	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)
Operating Temperature	−40°C ~ +55°C (−40°F ~ +131°F) / Less than 95% RH * Start up above −30°C	−40°C ~ +55°C (−40°F ~ +131°F) / Less than 95% RH * Start up above −30°C	−40°C ~ +55°C (−40°F ~ +131°F) / Less than 95% RH * Start up above −30°C	−40° C ~ +55° C (−40° F ~ +131° F) / Less than 95% RH * Start up above −30°C	−40C ~ +55C (−40F ~ +131F) / Less than 95% RH * Start up above −30°C	−40°C ~ +55°C (−40°F ~ +131°F) / Less than 95% RH * Start up above −30°C
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W	PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W	PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W	PoE: Max 11.4W, typical 8.5W 12VDC: Max 9.6W, typical 7.2W	PoE: Max 10.7W, typical 8.1W 12VDC: Max 9.1W, typical 6.5W	PoE: Max 10.7W, typical 8.1W 12VDC: Max 9.1W, typical 6.5W
Dimensions (WxHxD) / Weight	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543 lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543 lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543 lb)	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)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124 lb)
Additional Features	Defocus detection, Directional detection, Motion detection, Enter/ Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/ Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/ Exit, Tampering, Virtual line	Handover, Hallway View	Handover, Hallway View	Defocus detection, Directional detection, Motion detection, Enter/ Exit, Tampering, Virtual line

						
	QND-7082R 4MP IR Dome Camera	QND-7032R 4MP IR Dome Camera	QND-7022R 4MP IR Dome Camera	QND-7012R 4MP IR Dome Camera	QNB-6002 2MP Box Camera	QNO-6082R/6082R1 2MP IR Bullet Camera
Imaging Device	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.01Lux (F1.2) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	3.2~10mm (3.1x) motorized varifocal	6mm fixed focal	4mm fixed focal	2.8mm fixed focal	—	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 98.6° (Wide) ~ 30.8° (Tele) V : 52.3° (Wide) ~ 17.3° (Tele) D : 115.7° (Wide) ~ 35.3° (Tele)	H : 49° / V : 27.6° / D : 55.6°	H : 78.2° / V : 41.2° / D : 92°	H : 107.5° / V : 59.7° / D : 122°	—	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°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	—	—
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	—	30m (98.43ft)
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	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	—	—	—	—	—	—
Analytics	Intelligent 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	1 / 1
Audio I/O	Built-in mic / —	Built-in mic / —	Built-in mic / —	Built-in mic / —	Line in / Line out	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	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	4MP / 30fps	4MP / 30fps	4MP / 30fps	4MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	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	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	−10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH	−10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH	−10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH	−10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH	−30℃ ~ +60℃ (−22℉ ~ +140℉) / Less than 90% RH	−30℃ ~ +55℃ (−22℉ ~ +131℉) * Start up above −20℃ (−4℉)
Certification	—	—	—	—	—	IP66, IK 10
Power Consumption	PoE: Max 8.6W, typical 6.3W 12VDC: Max 7.6W, typical 5.4W	PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W	PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W	PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W	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
Dimensions (WxHxD) / Weight	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705 lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562 lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562 lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562 lb)	Ø73.8 x 66.6 x 136.2mm (Ø2.91" x 2.62" x 5.36") 320g (0.71lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") 900g (1.984 lb)
Additional Features	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Hallway View	Hallway View

						
	QNO-6022R/6022R1 2MP IR Bullet Camera	QNO-6012R/6012R1 2MP IR Bullet Camera	QNO-6032R 2MP IR Bullet Camera	QND-6082R/6082R1 2MP IR Dome Camera	QND-6022R/6022R1 2MP IR Dome Camera	QND-6012R/6012R1 2MP IR Dome Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Colour : 0.1Lux (F2.0) Colour : 0.1Lux (F1.6) (QNO-6022R) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (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	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	4mm fixed	2.8mm fixed	6mm fixed	3.2~10mm (3.1x) motorized varifocal	4mm fixed	2.8mm fixed
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°	H : 52.8° / V : 30.3° / D : 60.4°	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°
Pan / Tilt / Rotate	—	—	—	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	25m (82.02ft)	20m (65.62ft)	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)
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	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	—	—	—	—	—	—
Analytics	Intelligent 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	1 / 1
Audio I/O	Selectable (mic in/line in) / —	Selectable (mic in/line in) / —	Selectable (mic in/line in) / —	Built-in mic / —	Built-in mic / —	Built-in mic / —
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265, H.264, MJPEG	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	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	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	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	−30℃ ~ +55℃ (−22℉ ~ +131℉) * Start up above −20℃ (−4℉)	−30℃ ~ +55℃ (−22℉ ~ +131℉) * Start up above −20℃ (−4℉)	−30° C ~ +55° C (−22° F ~ +131° F) * Start up above −20° C (−4° F)	−10° C ~ +55° C (+14℉ ~ +131℉ F)	−10℃ ~ +55℃ (+14℉ ~ +131℉)	−10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	IP66, IK 10	IP66, IK 10	IP66, IK 10	—	—	—
Power Consumption	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W, typical 4.5W	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W, typical 4.5W	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W
Dimensions (WxHxD) / Weight	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb)	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)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View



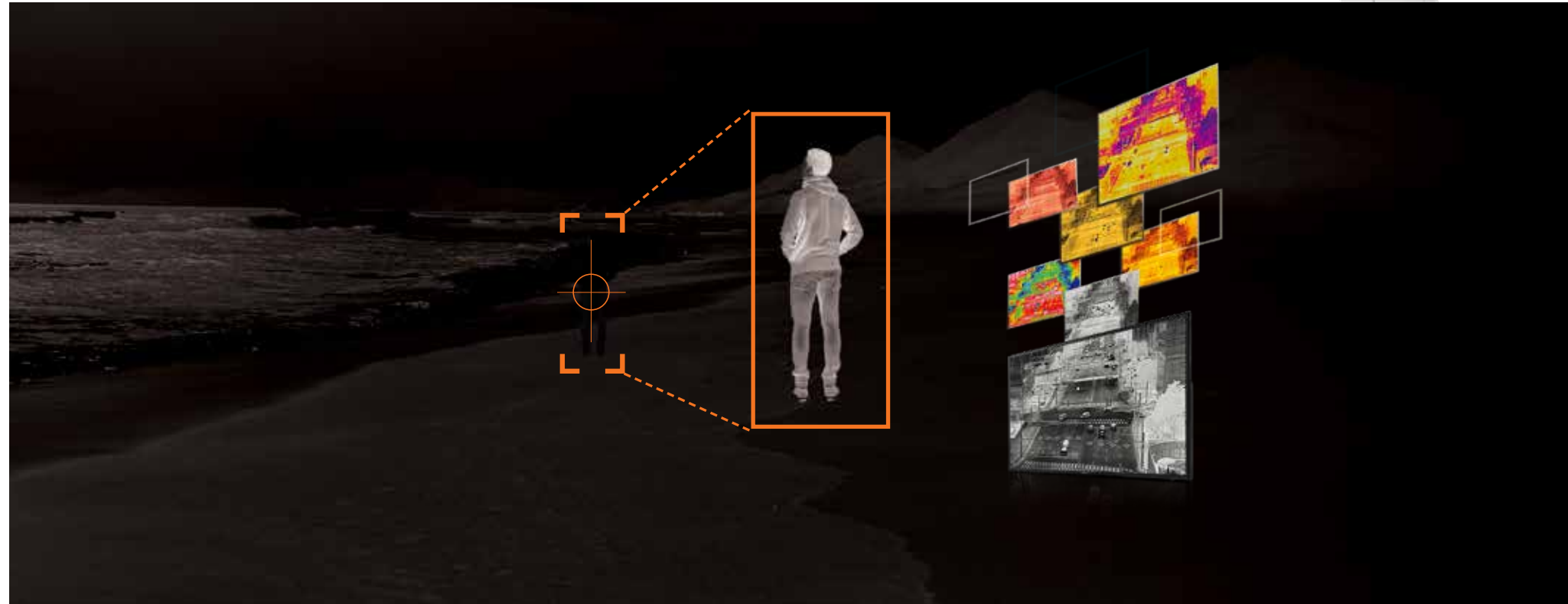
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour: 0.1Lux (F2.0) (QND-6011) Colour: 0.1Lux (F1.6) (QND-6021)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03Lux(F2.0, 1/30sec) BW: 0Lux(IR LED on)	Colour: 0.03Lux(F2.0, 1/30sec) BW: 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	CVBS: 1.0 Vp–p
Focal Length	2.8mm fixed (QND-6011) 4mm fixed (QND-6021)	3.2 ~ 10mm (3.1x) motorized varifocal	4mm fixed	2.8mm fixed	3.6mm fixed focal	3.6mm fixed focal
Angular Field of View	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: 87.6° / V: 46.4° / D: 104.5°	H: 113.74° / V: 61.5° / D: 134.45°	H: 94.8° / V: 49.3° / D: 114.3°	H: 94.8° / V: 49.3° / D: 114.3°
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	±5° / 0° ~ 67° / ±90°	±5° / 0° ~ 67° / ±90°
IR Viewable Length	–	30m (98.42ft)	25m (82.02ft)	20m (65.62ft)	15m(49.21ft)	15m(49.21ft)
Day & Night	Auto (Electrical)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–	–	–	–
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Defocus detection, Directional detection, Motion detection, Enter/ Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line
Business Intelligence	People counting	–	–	–	–	–
Alarm I/O	–	1 / 1	1 / 1	1 / 1	–	–
Audio I/O	–	Selectable (mic in/line in) / –	Selectable (mic in/line in) / –	Selectable (mic in/line in) / –	Line-in	Selectable(mic in/line in/built-in mic) Line out, Max.output level: 1Vrms
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 / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	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	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 1slot 128GB	Micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform
Operating Temperature	–10° 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)	–30° C ~ +55° C (–22° F ~ +131° F) * Start up above –20° C (–4° F)	–30° C ~ +55° C (–22° F ~ +131° F) / Less than 90% RH	–30° C ~ +55° C (–22° F ~ +131° F) / Less than 90% RH
Certification	IP42, IK08	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	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	PoE: Max 7.4W, typical 6W 12VDC: Max 6.4W	PoE: Max 6.70W, typical 5.00W	PoE: Max 6.70W, typical 5.00W
Dimensions (WxHxD) / Weight	Ø99 x 56mm (Ø3.9" x 2.2") 145g (0.320lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	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)
Additional Features	Super compact design, Hallway View	Hallway View	Hallway View	Hallway View	–	–



Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)
Video Output	–	–	–	–	–	–
Focal Length	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 111mm(25x) zoom	4.44 ~ 111mm(25x) zoom
Angular Field of View	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.30° (Tele)	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.30° (Tele)	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	H: 64.66(Wide)~2.99(Tele) V: 38.08(Wide)~1.68(Tele)	H: 64.66(Wide)~2.99(Tele) V: 38.08(Wide)~1.68(Tele)
Pan / Tilt / Rotate	–	–	–	–	–	–
IR Viewable Length	–	–	–	100m (328.08ft)	–	100m(328.08ft)
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	SSNR V	SSNR V	SSNR V	SSNR V	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	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection (with NW I/O Box)	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection(with NW I/O Box)	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection (with NW I/O Box)	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line
Business Intelligence	–	–	–	–	–	–
Alarm I/O	Compatible with NW I/O Box (Optional)	4 / 2	–	Compatible with NW I/O Box (Optional)	–	–
Audio I/O	Compatible with NW I/O Box (Optional)	Selectable (mic in/line in) / Line out	–	Compatible with NW I/O Box (Optional)	Selectable(mic in/line in), Line out (QNP-6250)	–
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	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T 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	ONVIF Profile S/G/T SUNAPI (HTTP API), Wisenet open platform
Operating Temperature	Normal : –35° C ~ +55° C (–31° F ~ +131° F) / * Start up should be done at above –30° C Less than 95% RH (Non-condensing)	–10° C ~ +55° C (+14° F ~ +131° F) / Less than 95% RH	–35° C ~ +55° C (–31° F ~ +131° F) / * Start up should be done at above –25° C Less than 95% RH (Non-condensing)	Normal : –35° C ~ +55° C (–31° F ~ +131° F) / * Start up should be done at above –30° C Less than 95% RH (Non-condensing)	Normal : –35° C ~ +55° (–31° F ~ +131° F) / Intermittent : –40° C ~ +60° C (–40° F ~ +140° F) * Start up above –30° C Less than 95% RH(Non-condensing) (QNP-6250H) –10° C ~ +55° C (–58° F ~ +131° F) / Less than 95% RH (QNP-6250)	Normal : –35° C ~ +55° (–31° F ~ +131° F) / Intermittent : –40° C ~ +60° C (–40° F ~ +140° F) * Start up above –30° C Less than 95% RH(Non-condensing)
Certification	IP66, IK10, NEMA4X	–	IP66/IP67, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	Max. 23W, Typ. 14W	Max. 14.5W, Typ. 12W	Max. 23W, Typ. 14W	Max. 25.5W, Typ. 14.7W	Max. 23W, Typ. 14W (QNP-6250H) Max. 14.5W, Typ. 12W (QNP-6250)	Typ.14.7W, Max.25.5W Camera only
Dimensions (WxHxD) / Weight	Ø204.3 x 265mm (Ø8.04" x 10.43") 2.7kg (5.95lb)	Ø152 x 218mm (Ø5.98" x 8.58") 1.7kg (3.75 lb)	Ø227 x 299.2mm (Ø8.94" x 11.78") 5.4 kg (11.93 lb)	Ø158 x 293.3mm 3.1kg (6.83lb)	Ø204.3 x 265mm (8.04 x 10.43"), 2.7kg (5.95lb) (QNP-6250H) Ø152x218mm(5.98x8.58"), 1.7Kg(3.75 lb) (QNP-6250)	Ø158x293.3mm / 3.1Kg
Additional Features	–	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection	–	–	–	–

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.

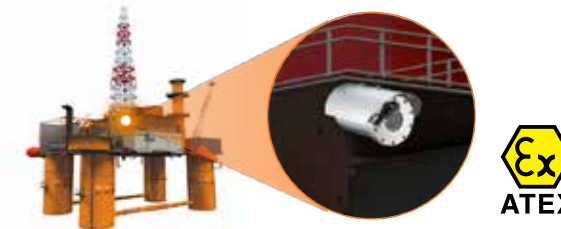


TNU-6322

TNO-6322E

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.



255 preset positions

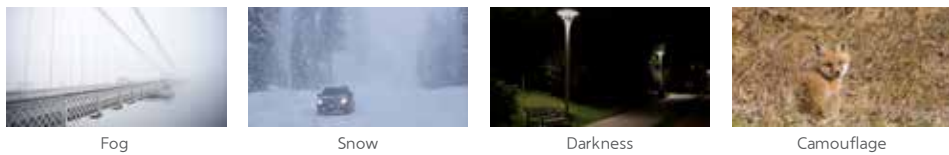
360° endless pan rotation

TNU-6322E

VGA and QVGA Thermal Cameras

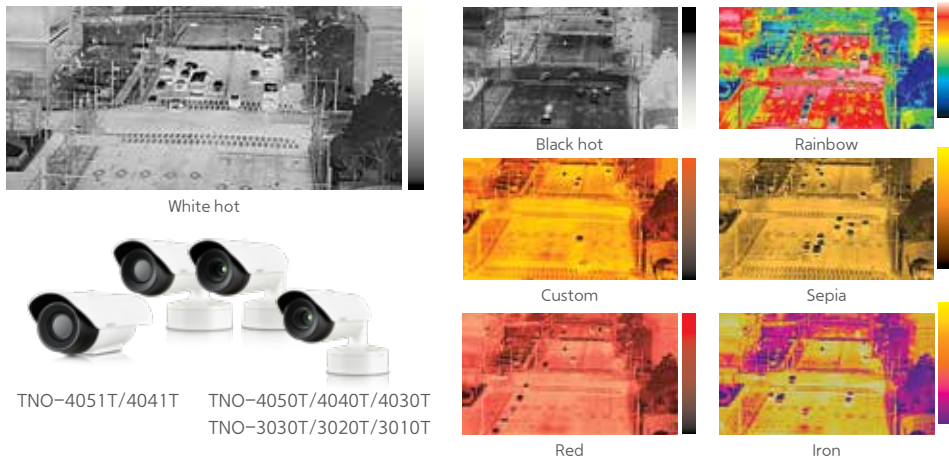
See the unseen with thermal cameras

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.



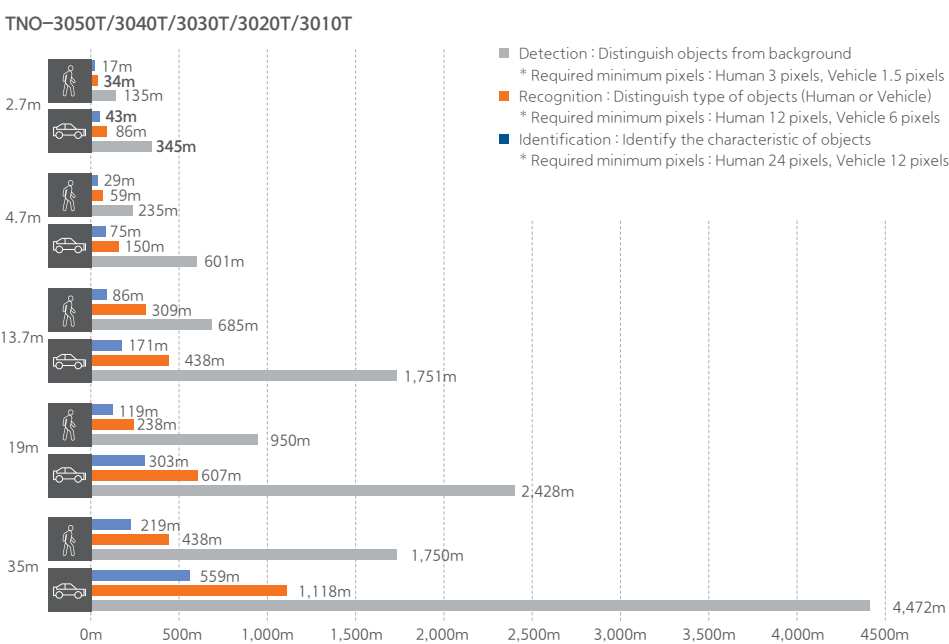
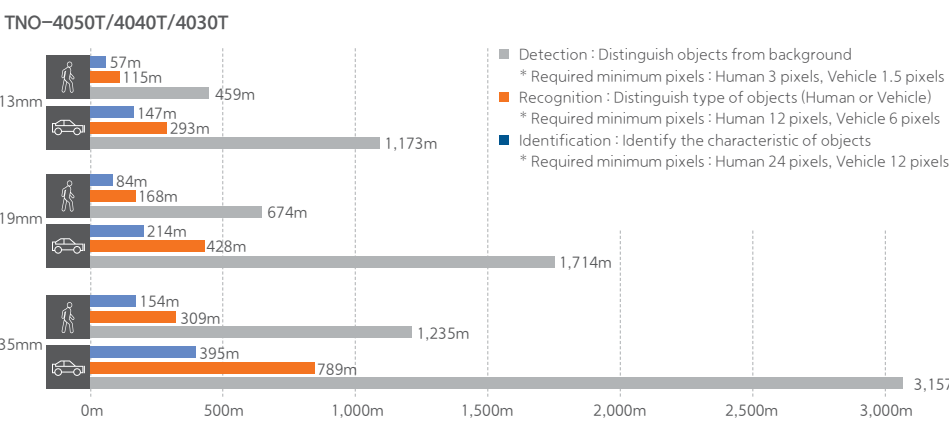
Multiple colour palettes

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.



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.



*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.

VGA Thermal Radiometric Camera



Temperature measurement to monitor incidents

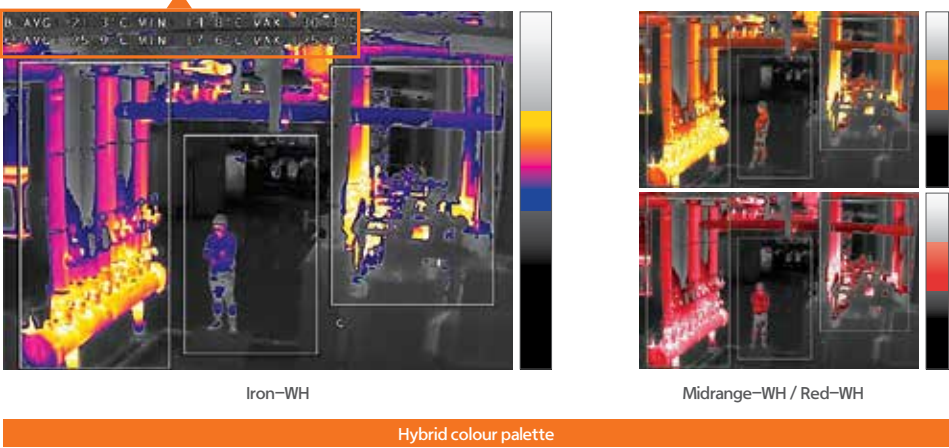
The Wisenet thermal radiometric camera has the added feature of being able to detect the temperature range of -20°C to +130°C. Alarms are generated and sent to users whenever the temperature of three areas in the monitoring screen is above or below a defined value or the temperature increases or decreases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

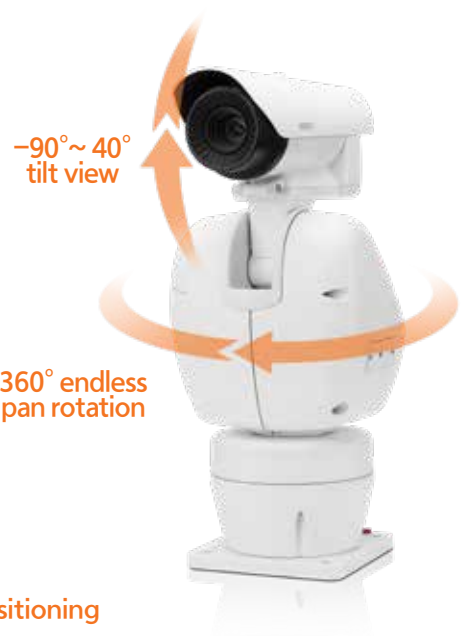
Selected temperature range displayed in vivid colours

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



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.



Wisenet

MEDICAL GRADE TEMPERATURE DETECTION

Thermal Camera Powered By
Deep Learning AI Face Detection

36.4



38.7



TNM-3620TDY

FDA
510(K) CLEARANCE
(*IN PROGRESS)



TNF-9010
12MP sensor Fisheye Camera



TNM-3630TDY
Temperature Detection
Thermal Camera



TNB-9000
8K Box Camera



TNV-8011C
5MP Corner Mount Camera



TNV-7011RC
3MP Corner Mount IR Camera

NEW



TNO-6322ER
2MP Explosion-proof Camera

	TNF-9010 12MP sensor Fisheye Camera	TNM-3630TDY Temperature Detection Thermal Camera	TNB-9000 8K Box Camera	TNV-8011C 5MP Corner Mount Camera	TNV-7011RC 3MP Corner Mount IR Camera	TNO-6322ER 2MP Explosion-proof Camera
Imaging Device	1/2.3" 12MP CMOS	2 lenses: Thermal: Uncooled micro bolometer (320x240) Visible spectrum: 4mm fixed 1/2.8" CMOS (1920x1080)	43.3mm Full-frame CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.39 Lux(F2.2, 1/30sec) BW : 0.039Lux(F2.2, 1/30sec)	—	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)	Color: 0.3 lux (F2.0, 1/30sec) B/W: 0 lux (F2.0, 1/30sec)	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005 Lux (1/30sec, F1.6), 0Lux(IR LED on)
Video Output	CVBS : 1.0 Vp-p	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	1.08mm fixed focal	4.7mm fixed	—	2.3mm fixed	2.8mm fixed focal	4.44 ~ 142.6mm(32X) zoom
Angular Field of View	H: 187° / V: 187° / D: 187°	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°	H: 61.8(Wide)~2.19(Tele) / V: 36.2(Wide)~1.24(Tele)
Pan / Tilt / Rotate	Rotate : +/- 180	—	—	-7~-7°	- / 30° ~ 60° / -	—
IR Viewable Length	—	—	—	—	10m (32.8ft)	70m (229.66ft)
Day & Night	Auto (ICR)	—	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	—	—	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	—	SSNRV	SSNR	SSNRV	SSNRV
Digital Image Stabilization	—	Support	—	Support	Support	Support
Analytics	Parking detection based on AI engine, Defocus detection, Motion detection, Tampering	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	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, Appear/Disappear, Audio detection, Face detection, Motion detection, Digital auto tracking, Sound classification, Shock detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection
Business Intelligence	—	—	—	—	—	—
Alarm I/O	1 / 1	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) / 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	12MP / 30fps	—	8K / 15fps, 24MP / 20fps, 15MP / 30fps, 4K / 60fps	—	3MP / 30fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	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	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 1slot (128GB)	Micro SD/SDHC/SDXC 1slot 256GB	—
Application Programming Interface	ONVIF Profile S/T, SUNAPI(HTTP API), Wisenet open platform	—	ONVIF Profile S/G/T, SUNAPI	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 ~ +50°C (14°F ~ +122°F) Less than 95% RH	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) / Less than 90% RH	IR Off : -40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH IR On : -40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH
Certification	—	—	—	IP66, IP6K9K, IK10	IP66, IP6K9K, IK10+	IECEX, ATEX, KCs, KC, CE, IP67, IK10
Power Consumption	PoE : Max 12.95W, Typical 10W 12VDC: Max 10W, Typical 8.3W	PoE+: Max. 17.0W 12VDC: Max. 14.5W	HPoE: Max 40W 12VDC: Max 35W	PoE: Max 6.49W	PoE: Max 12W, typical 10.1W, 12VDC: Max. 11W, typical 8.6W	24VAC: Max 45W
Dimensions (WxHxD) / Weight	Ø 158 x 80.5mm (6.22" x 3.17), 1.280g (2.82lb)	135 x 75 x 188.5mm (5.31" x 2.95" x 7.42"), 1.7kg (3.77lb)	118.5 x 120 x 180mm, 2.2kg (4.85lb)	143 x 122 x 73.7mm (5.6" x 4.8" x 2.9"), 815g(1.79lb)	Ø295.5 x 113.5mm (Ø 11.6" x 4.47"), 2.1kg (4.63lb)	175 x 242.5 x 320mm (6.89" x 9.59" x 12.59"), 11.5kg(25.35lb)
Additional Features	—	—	8K, Canon EF mount	—	—	Wipers

					
TNU-6322E 2MP Explosion-proof Camera	TNU-6322ER 2MP Explosion-proof Camera	TID-600R 2MP Intercom	TNU-6321 2M Network Positioning Camera	TNU-4041T / 4051T VGA Thermal Positioning Camera	TNO-4041T/4051T VGA Thermal Bullet Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	Uncooled Micro bolometer	Uncooled Micro bolometer
Min. Illumination	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005 Lux (1/30sec, F1.6)	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005 Lux (1/30sec, F1.6), 0Lux (IR LED on)	Colour: 0.018Lux (F1.6, 1/30sec) BW: 0 Lux (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
Focal Length	4.44 ~ 142.6mm(32X) zoom	4.44 ~ 142.6mm(32X) zoom	1.6mm fixed focal	4.44~142.6mm(32x) zoom	19mm fixed (TNO-4041T) 35mm fixed (TNO-4051T)
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: 180 / V: 114 / D: 180	H: 61.8 ° (Wide)~2.19 ° (Tele) / V: 36.2 ° (Wide)~1.24 ° (Tele)	H: 32 ° / V: 24.3 ° / D: 39.2 ° (TNO-4041T) H: 17.2 ° / V: 13 ° / D: 22 ° (TNO-4051T)
Pan / Tilt / Rotate	360 ° Endless / 180 (−90 ~ 90)	360 ° Endless / 180 (−90 ~ 90)	—	360 ° Endless / −90 ° ~ 40 °	—
IR Viewable Length	—	—	5m	—	—
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	—
Wide Dynamic Range	120dB	120dB	150dB	120dB	—
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	—
Digital Image Stabilization	Support	Support	Support	Support	Support (Built-in Gyro sensor)
Analytics	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Shock detection, Sound classification	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection
Business Intelligence	—	—	—	—	—
Alarm I/O	1 / 1	1 / 1	2 / 1	1 / 1	1 / 2
Audio I/O	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out	Two-way/one-way selectable / Built-in mic	Selectable(mic in/line in)	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	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
Application Programming Interface	ONVIF Profile S, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S, SUNAPI(HTTP API), Wisenet open platform	ONVIF profile S/G, SUNAPI, 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	−40°C~+60°C(−40°F~+140°F) / Less than 95% RH	−30°C~+55°C(−22°F~+131°F) Less than 95% RH	−40°C~+55°C (−40°F~+131°F) / Less than 90% RH	−40°C ~ +60°C (−40°F ~ +140°F)
Certification	IECEx, ATEX, KCs, KC, CE IP67, IK10	IECEx, ATEX, KCs, KC, CE IP67, IK10	IP65, IK08, NEMA4X, Safety(UL), EMC(FCC, CE)	IP66, Safety(UL, KC-SDOC), EMC(FCC, CE, VCCI, RCM, KC)	IP66, NEMA 4X, IK10 (TNO-4041T)
Power Consumption	24VAC: Max. 99W	24VAC: Max. 99W(Camera) 24VAC: Max. 50W(IR)	PoE: Max 12.95W, typical 9.1W 12VDC: Max 17.6W, typical 7W * 12VDC power consumption includes 12VDC/550mA relay out.	Max 100W(Heater On), typical 25W(Heater Off)	24VAC : Max 84W – Heater On Max 62W – Heater Off
Dimensions (WxHxD) / Weight	355 x 427 x 235mm (13.97" x 16.81" x 9.25"), 25kg(55.12lb)	611 x 438 x 235mm (24.06" x 17.24" x 9.25"), 36kg(79.37lb)	49(W) x 165(H) x 48(D)mm (1.93" x 6.50" x 1.89"), 490g	219 x 528.2 x 460mm (8.62" x 20.79" x 18.11"), 14kg (30.86 lb)	Ø 101.97 x 309mm (Ø 4.01" x 12.17") 2,501g (5.51 lb)
Additional Features	Wipers	Wipers	—	—	Various colour palettes, PT type

				
TNO-4030T/4040T/4050T VGA Thermal Bullet 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	Uncooled micro bolometer
Min. Illumination	—	—	—	—
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	13mm fixed (TNO-4030T) 19mm fixed (TNO-4040T) 35mm fixed (TNO-4050T)	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)
Angular Field of View	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)	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)
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)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection
Business Intelligence	—	—	—	—
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 2
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	320 x 240 / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
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)	−40°C ~ +60°C (−40°F ~ +140°F) / Less than 90% RH
Certification	IP66, NEMA 4X, IK10 (TNO-4030T/4040T)	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 10W / 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W / 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W / 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 8.7W / 12VDC: Max 7.8W 24VAC : Max 9.2W
Dimensions (WxHxD) / Weight	Ø 147.51 x 401.8mm (Ø 5.81" x 15.82") 3,175g (7.0 lb)	Ø 101.97 x 309mm (Ø 4.01" x 12.17") 2,452g (5.41lb)	Ø 101.97 x 401.8mm (Ø 4.01" x 15.82") 3,124g (6.89lb)	Φ 147.51 x 375.3mm (Φ 5.81" x 14.78") / 2512g (5.538lb) (TNO-3010T/3020T/3030T) Φ 147.51 x 401.3mm (5.81 x 15.79") / 2742g(6.05lb) (TNO-3040T) Φ 147.51 x 375.3mm (5.81 x 14.78") / 2495g (5.50lb) (TNO-3050T)
Additional Features	Various colour palettes	Various colour palettes Spot temperature reading, PT type	Various colour palettes Spot temperature reading	Various colour palettes

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 AI NVR	 XRN-6410DB4/6410B4 64CH 32MP NVR	 PRN-3205B4 32CH 32MP AI NVR	 XRN-3210B4 32CH 32MP NVR
Os	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Max. Recording Bit Rate	400Mbps	400Mbps	400Mbps	400Mbps
Max # of Cameras	64	64	32	32
Internal Storage	Up to 16 SATA (Hot swap) Max. 160TB (Non RAID), Max. 136TB (RAID 5)	Up to 16 SATA (Hot swap) Max. 160TB (Non RAID), Max. 136TB (RAID 5)	Up to 16 SATA (Hot swap) (Max. 160TB (Non RAID), Max. 136TB (RAID 5)	Up to 16 SATA Max. 160TB (Non RAID)
External Storage	iSCSI	iSCSI	iSCSI	iSCSI
RAID	RAID-5/6	RAID-5/6	RAID-5/6	RAID 5/6
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) / Support dual monitor	2x HDMI (Up to 4K) / Support dual monitor
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• AI search support for non-AI, P and X Series cameras (excluding X-Lite) • 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)	• AI search support for non-AI, P and X Series cameras (excluding X-Lite) • 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

	 XRN-3210RB2 32CH NVR	 XRN-1620SB1 16CH NVR	 XRN-1620B2 16CH NVR	 XRN-815S 8CH NVR
Os	Linux	Linux	Linux	Linux
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265, H.264, MJPEG	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG
Max. Recording Bit Rate	400Mbps	140Mbps	140Mbps	100Mbps
Max # of Cameras	32CH	16	16	8
Internal Storage	Up to 8 SATA (Max. 80TB)	Up to 4 SATA (Max. 24TB)	Up to 8 SATA (Max. 80TB)	Up to 2 SATA (Max. 20TB)
External Storage	iSCSI	-	-	-
RAID	RAID 5/6	-	-	-
Hot Swap	Yes	-	-	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor, HDMI 1 (Up to 4K), HDMI 2 (FHD)	HDMI (Up to 4K), VGA, Support dual monitor : HDMI / VGA	Support dual monitor, HDMI 1 (Up to 4K), HDMI 2 (FHD)	HDMI1: 3840x2160(30Hz), HDMI2: 1920x1080(60Hz)
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• N+1 failover supported • AI search support when working with Wisenet AI camera • PTZ camera configuration and control • Fisheye dewarping	• Plug & Play by 16 PoE Ports • 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 • AI search support when working with Wisenet AI camera • PTZ camera configuration and control	• Plug & Play by 8 PoE Ports • N+1 failover supported • AI search support when working with Wisenet AI camera • PTZ camera configuration and control



XRN-820S
8CH NVR



XRN-420S
4CH 8MP NVR



QRN-1620S
16CH 8MP NVR



QRN-820S
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
Max. Recording Bit Rate	100Mbps	50Mbps	128Mbps	80Mbps
Max # of Cameras	8	4	16	8
Internal Storage	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)
External Storage	–	–	–	–
RAID	–	–	–	–
Network Viewer Software	WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA	HDMI(8MP), VGA	HDMI(8MP), VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• PoE supported • N+1 failover supported • AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras • PTZ camera configuration and control	• 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



QRN-1630S
16CH NVR



QRN-830S
8CH NVR



QRN-430S
4CH NVR



QRN-420S
4CH 8MP NVR

OS	Linux	Linux	Linux	Linux
Supported Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265, H.264, MJPEG
Max. Recording Bit Rate	128Mbps	Max. 80Mbps	40Mbps	40Mbps
Max # of Cameras	16CH	8CH	4CH	4
Internal Storage	Up to 2 SATA (Max. 20TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)
External Storage	–	–	–	–
RAID	–	–	–	–
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3 rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3 rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3 rd party VMS	SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI1: 3840 x 2160(30Hz), HDMI2: 1920 x 1080(60Hz)	HDMI :3840 x 2160 (30Hz)	HDMI 1 (Up to 4K)	HDMI(8MP), VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• PoE supported • N+1 failover supported • ARB (Auto Recovery Backup) redundancy supported • PTZ camera configuration and control • Easy configuration (Setup Wizard, P2P (QR Code))	• PoE supported • N+1 failover supported • ARB (Auto Recovery Backup) redundancy supported • PTZ camera configuration and control • Easy configuration (Setup Wizard, P2P (QR Code))	• PoE supported • N+1 failover supported • ARB (Auto Recovery Backup) redundancy supported • PTZ camera configuration and control • Easy configuration (Setup Wizard, P2P (QR Code))	• 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

Encoder



SPE-1630
16CH Encoder



SPE-420
4CH Encoder

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

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
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

Wisenet WAVE 5.0 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.
- Perpetual licence, no recurring fees.

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 INTEGRATION

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

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

- Video/ Audio Streaming
- PTZ / AI cameras/ Network Intercom (TID-600)/ Parking Guidance Camera (TNF-9010)
- Event - MD, Alarm
- Edge recording



Hanwha Techwin specific features
NVR monitoring, search & playback; and deep camera integration with:

- Advanced Object Search
- Web Page Proxy via Servers
- Two-Factor Authentication (2FA)
- Resource Grouping
- Audio Mapping
- Desktop Client Automatic Updates
- Encrypted Archives
- Server Web Admin Interface Redesign
- More Secured Connections

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

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



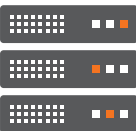
Desktop

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



Mobile

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



Server

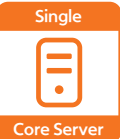
A media server responsible for discovering, connecting to, and managing system devices and data.

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

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.



Single
Core Server



Free Trial
45 days
Full Feature



User Friendly
UI



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

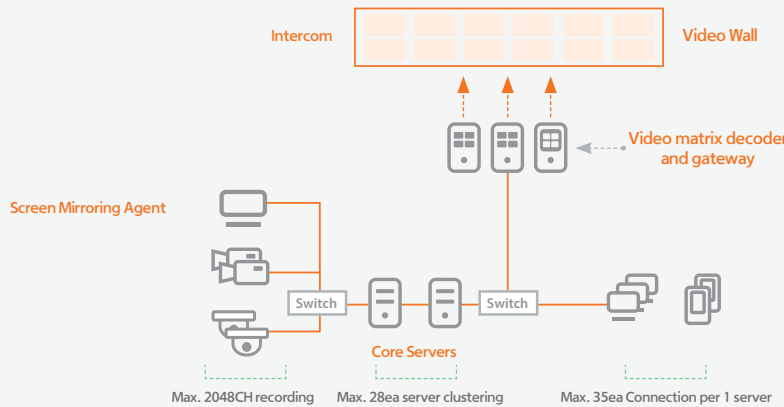


Display Events as Thumbnails



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)
	Centralised License Management	45 days free trial
System Management	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
Device Management	Federation	Multi-tier domain federation, Max. 100 domains
	Centralised Device Configuration	Auto / Manual discovery, Device and add-on server registration
	Maintenance	Setup file backup / restore, Device firmware update
Event Management	Event Configuration	4levels 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 seconds
	RAID	Hardware RAID controller required
	Etc.	ARB (Auto recovery backup) from camera edge storage, Recoding retention time, iSCSI support

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.



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

Imaging Device	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
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)
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)
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)
Pan / Tilt / Rotate	–	–	–	0° ~ 350° / 0° ~ 63° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	–	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)	20m (65.62ft) (HCD-7010R) 25m (82.02ft) (HCD-7020R) 30m (98.43ft) (HCD-7030R)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones
Alarm I/O	MD Output 1	MD Output 1	–	MD Output 1	–
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron) RS-485 : Samsung T, Pelco D/P	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Operating Temperature	–10°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)
Certification	–	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
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" × 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" × 3.39") 240g (0.53 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)

ANALOG

HD+ series



HCV-7070RA
QHD IR Vandal Dome Camera



HCV-7010RA/7020RA/7030RA
QHD IR Vandal Dome Camera



HCB-6001
1080p HD Box Camera



HCB-6000
1080p HD Box Camera



HCO-6080R
1080p HD IR Bullet Camera

Imaging Device	1/3" 4MP CMOS	1/3" 4MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Resolution	2560 x 1440	2560 x 1440	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCV-7010R) 0.27Lux (F2.0) (HCV-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCV-7010R) 4.0mm fixed (HCV-7020R) 6.0mm fixed (HCV-7030R)	—	—	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCV-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCV-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCV-7030R)	—	—	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	—	—	—
IR Viewable Length	30m (98.43ft)	20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	—	—	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	BLC/HLC/DWDR	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	2D DNR	2D DNR	SSNRIV	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	4 Zones	8 Zones	8 Zones
Alarm I/O	MD Output 1	—	0 / 1, External D/N 1	0 / 1, External D/N 1	MD Output 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), 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	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)	-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 5.8W	12VDC : Max 5.0W	12VDC & 24VAC : Max 6W	12VDC & 24VAC : Max 3.5W	12VDC & 24VAC : Max 6.0W
Dimensions (WxHxD) / Weight	Ø137 × 106.1mm (Ø5.39" × 4.18") 715g (1.58lb)	Ø120.3 × 91.7mm (Ø4.74" × 3.61") 510g (1.12lb)	73.1 × 67.2 × 123.9mm (2.88" × 2.65" × 4.88") 287g (0.63lb)	68.4 × 59.6 × 92.7mm (2.69" × 2.35" × 3.65") 186g (0.41lb)	Ø78.0 × 259.8mm (Ø3.07" × 10.23") (Without sunshield) 948g (2.09lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)



HCO-6080
1080p Analog HD Bullet Camera



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

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 : 0.11Lux (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)
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) varifocal	4mm fixed (F1.6)	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) varifocal
Angular Field of View	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	—	—		0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	—	30m (98.43ft)	30m (98.43ft)	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	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)	-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)
Certification	IP66, IK10	IP66, IK10	IP66	—	—
Power Consumption	12VDC & 24VAC : Max 6.0W	12VDC & 24VAC : Max 6.0W	12VDC : Max 4.2W	12VDC & 24VAC : Max 6.0W (HCD-6080R)	12VDC & 24VAC : Max 4.2W (HCD-6070R)
Dimensions (WxHxD) / Weight	Ø78.0 × 259.8mm (Ø3.07" × 10.23") (Without sunshield) 948g (2.09lb)	Ø78.0 × 259.8mm (Ø3.07" × 10.23") (Without sunshield) 914g (2.02lb)	Ø58.6 × 165.2mm (Ø2.31" × 6.50") (Without sunshield) 285g (0.62lb)	Ø119.8 × 98.5mm (Ø4.72" × 3.88") 330g (0.73lb)	Ø119.8 × 98.5mm (Ø4.72" × 3.88") 320g (0.71lb)
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)

ANALOG

HD+ series



HCD-6020R
1080p HD IR Dome Camera



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

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 : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.27Lux (F2.0) B/W : 0.017 Lux (F2.0)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	4mm fixed (F1.6)	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
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.7° / V : 61.5° / D : 134.5°	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)	-	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)	WDR (120dB)	Off / User BLC / HLC / WDR
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	-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)	-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 4.2W	12VDC : Max 3.5W	12VDC & 24VAC : Max 4.2W	12VDC & 24VAC : Max 4.2W	12VDC & 24VAC : Max 4.2W
Dimensions (WxHxD) / Weight	Ø110 x 86mm (Ø4.33" x 3.39") 320g (0.71 lb)	Ø110 x 86mm (Ø4.33" x 3.39") 225g (0.49 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60lb) 715g (1.58lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60lb) 715g (1.58lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60lb) 715g (1.58lb)
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)



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-434 | HRX-435 | HRX-835
HRX-1634 | HRX-1635

- 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



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.



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.



DVR

	 HRX-1634 16CH 8MP Pentabrid Recorder	 HRX-1635 16CH 8MP Pentabrid Recorder	 HRX-835 8CH 8MP Pentabrid Recorder
OS	Linux	Linux	Linux
Compression	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Signal Type	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera
Inputs	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 8CH, N/W Camera 2CH (up to 10CH)
Record Rate	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 15/12fps, 5MP 20/12fps, 4MP 30/25fps, 2MP 30/25fps 1MP 30/25fps NTSC/PAL * per CH
HDD Slot	SATA 2ea (Max 12TB)	SATA 8ea (Max 48TB)	SATA 4ea (Max 24TB)
Viewer Software	SSM, WebViewer, Wisenet Viewer, SmartViewer, Wisenet Mobile	SSM, Webviewer, Wisenet Viewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile
Local Display	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)
Audio In/Out	4 / 1	16 / 1	8 / 1
Alarm In/Out	16 / 4	16 / 4	8 / 4
N/W Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (3ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)

	 HRX-434 4CH 8MP Pentabrid Recorder	 HRX-435 4CH 8MP Pentabrid Recorder
OS	Linux	Linux
Compression	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Signal Type	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera
Inputs	Analog 4CH, N/W Camera 6CH (up to 10CH)	Analog 4CH, N/W Camera 6CH (up to 10CH)
Record Rate	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH
HDD Slot	Up to 1 SATA (Max 6TB)	Up to 2 SATA (Max 12TB)
Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS
Local Display	1 HDMI, 1 VGA	1 HDMI, 1 VGA
Audio In/Out	1 / 1	4 / 1
Alarm In/Out	4 / 1	4 / 2
N/W Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)

RECORDING
IN PROGRESS

Making it clear to
your customers that
they are on camera

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 (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

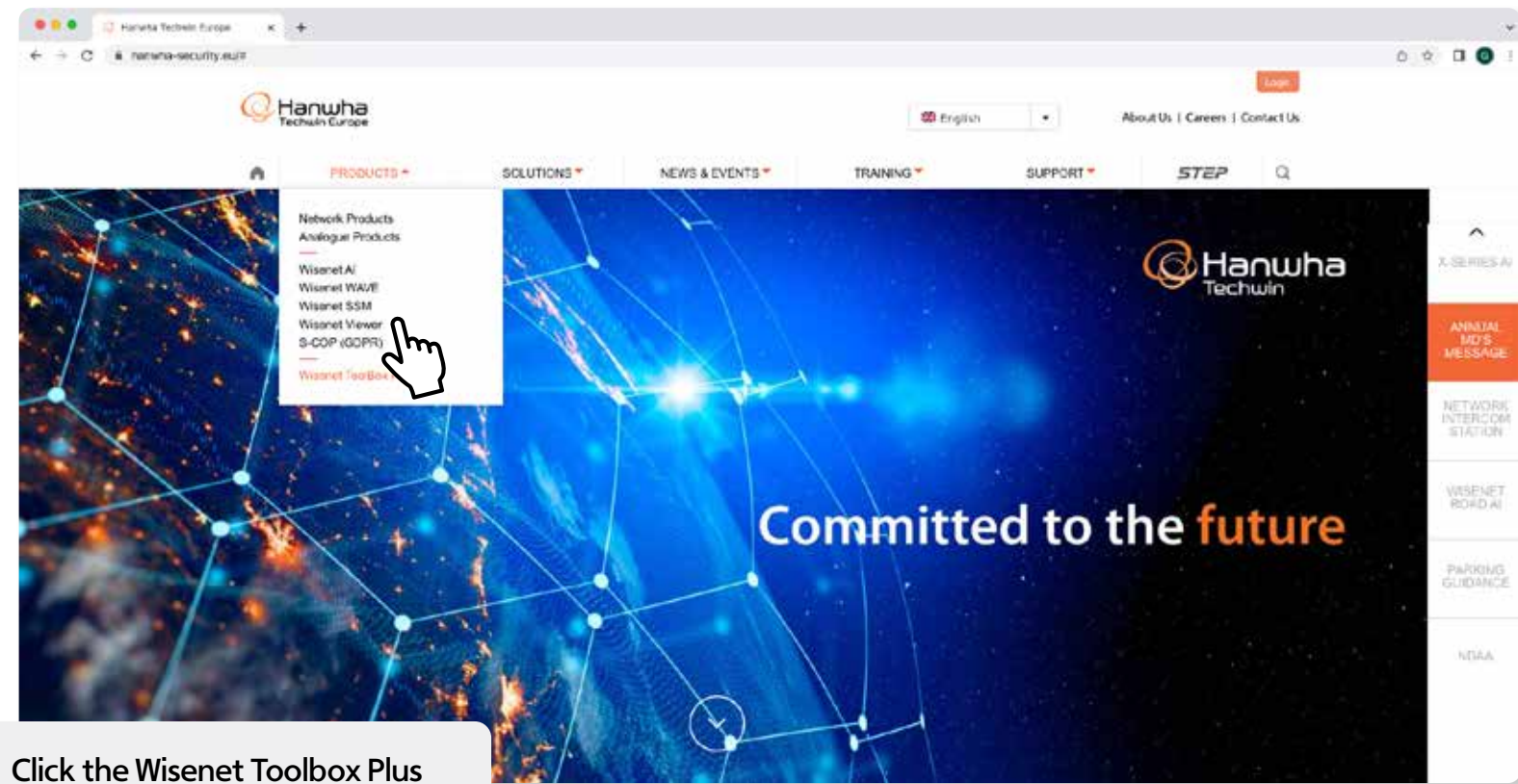
	SMT-4343 43" LED Monitor	SMT-3234 32" LED Monitor	SMT-2431 24" LED Monitor	SMT-1935 19" LED Monitor
Screen Size	43"	32"	24"	19"
Max. Resolution	3840 x 2160	1920 x 1080	1920 x 1080	1280 x 1024
Brightness	300 cd/m²	300 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio	1000:1	2250:1	4000:1	1000:1
Aspect Ratio	16:9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

Controller

	SPC-7000 System Controller	SPC-2000 Network Controller	SPC-2010 PTZ / DVR System Controller	SPC-1010 PTZ Control Keyboard
Features	• 5" TFT Touch LCD • Network Camera / SSM / Analog Camera / DVR Control • User-Friendly Design and Easy-to-Use Keypad • 3 Axis Joystick to Control PTZ Function • Detachable Joystick / Jogshuttle for Universe Use (Right / Left Hand Use) • USB Interface Support (1ea for SSM, 1ea for Image Snapshot / Upgrade) • Fast Camera-Tile Mapping, Config Import / Export	• Superior System Compatibility • 3D Joystick Control • Quick and Easy Installation • SSM Support • Supports Wave	• 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

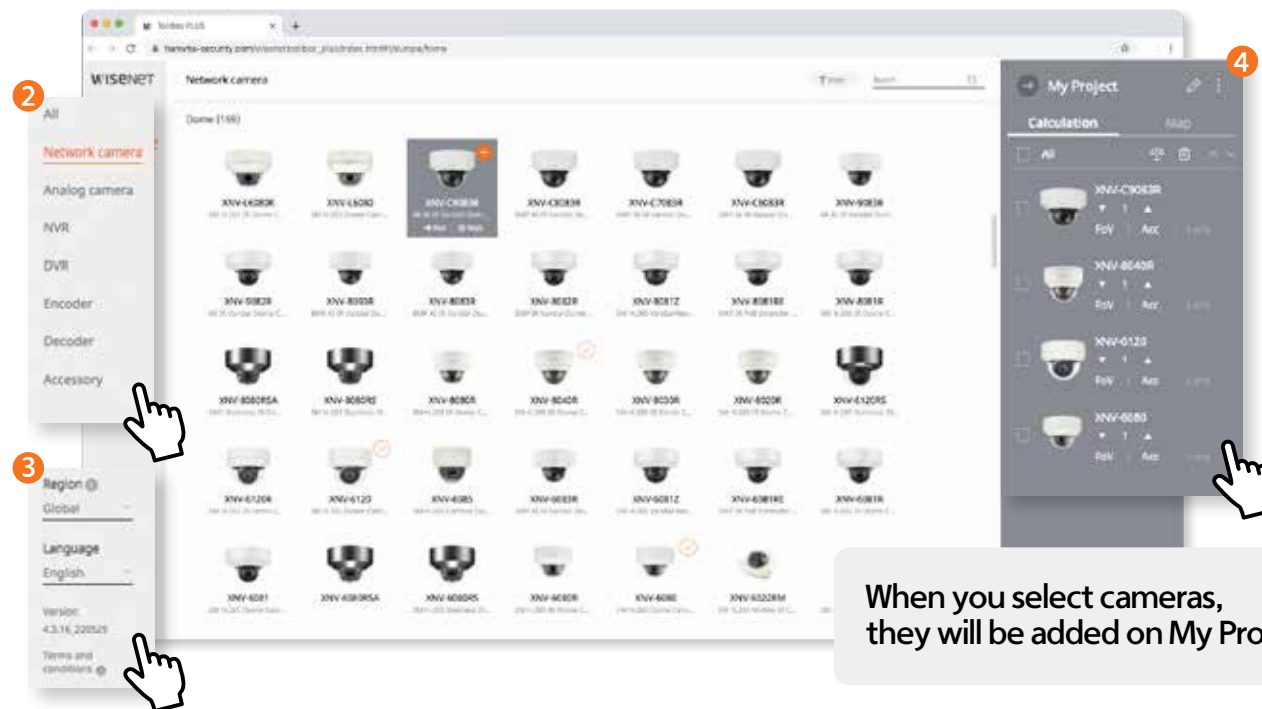
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											Iris	Focus	Zoom		
Varifocal Lens	SLA-M8550D		CS	1 / 2.8"	3Megapixel	8.5 ~ 50mm (0.33" ~ 1.97")	9.4 ~ 10.7mm (0.37" ~ 0.42")	5.9	F1.6	42.3° ~ 7.5°	DC	Manual	Manual	46 x 60 x 58.2mm (1.81" x 2.36" x 2.29")	80g (0.17 lb)
	SLA-M2890DN					2.8 ~ 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)



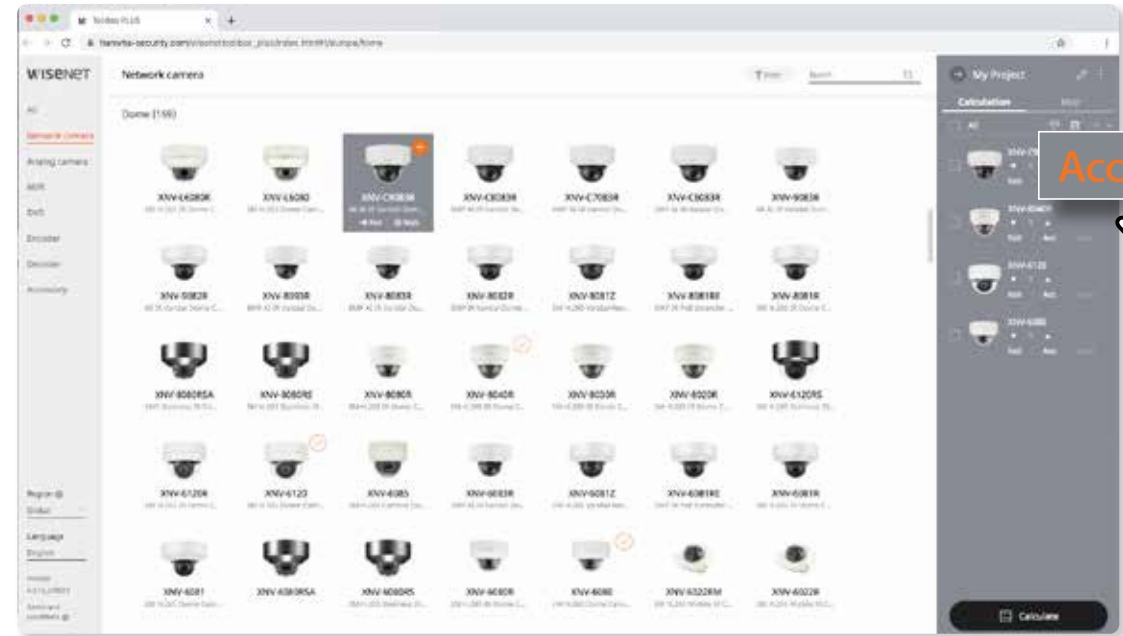
1 Click the Wisenet Toolbox Plus on Hanwha-security.eu

Choose product you are interested in

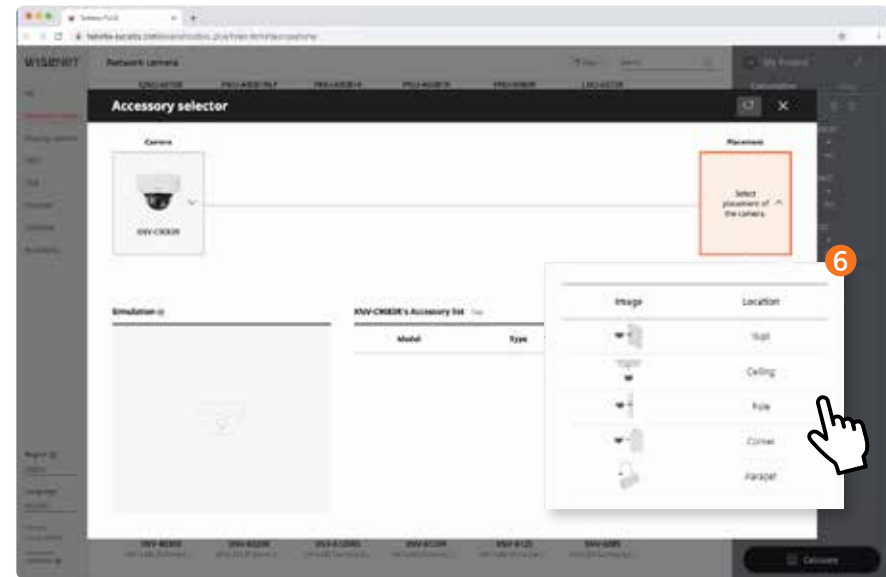
Select region and language



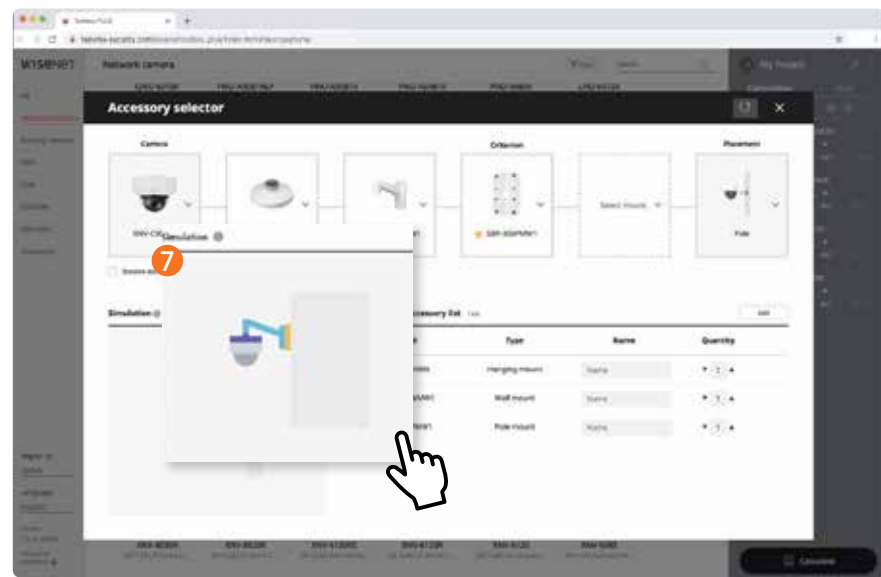
When you select cameras, they will be added on My Project



5 Click the Acc to find compatible accessories

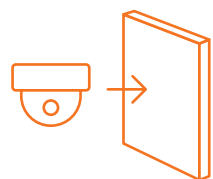


Accessory Selector pops up.
All compatible accessories are shown

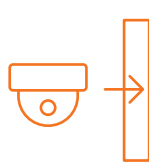


Choose accessories then the simulation
intuitively shows all connected accessories

WM Wall mounts



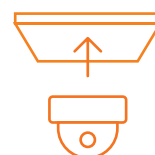
PM Pole mounts



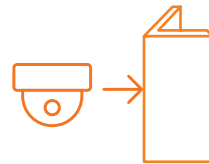
LM Parapet mounts



CM Ceiling mounts

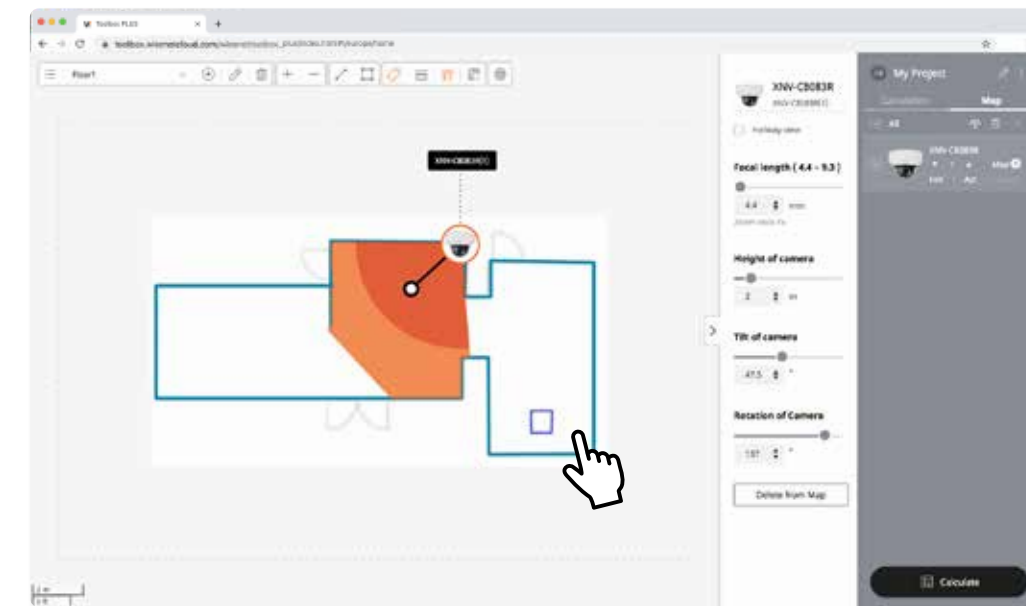


CM Corner mounts

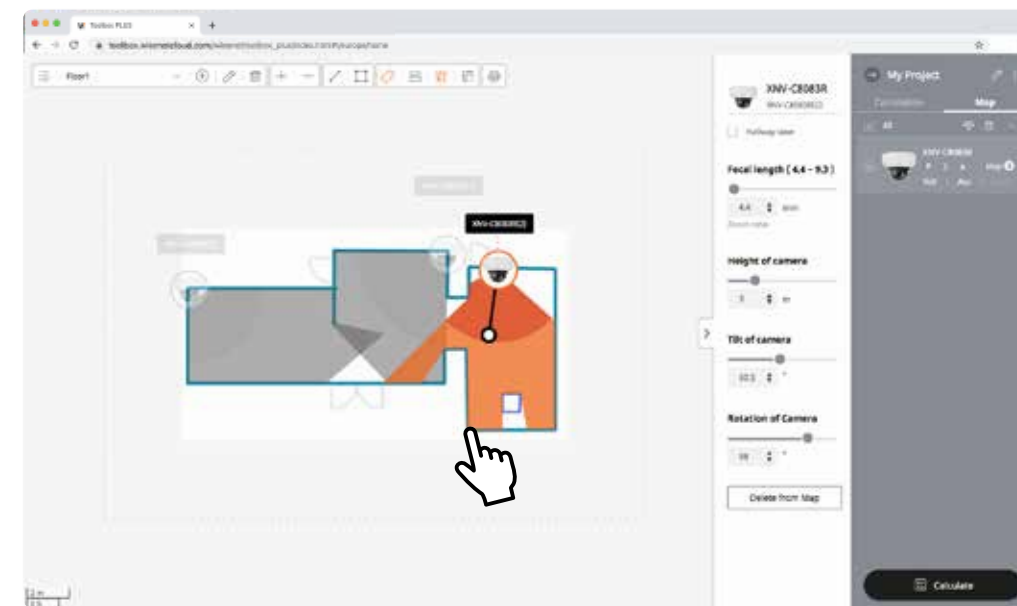


Newly updated in Toolbox Plus:
Simulate on the map

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



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



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

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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