



WISENET

Line-up de Productos
2021 **1er Semestre**

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





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

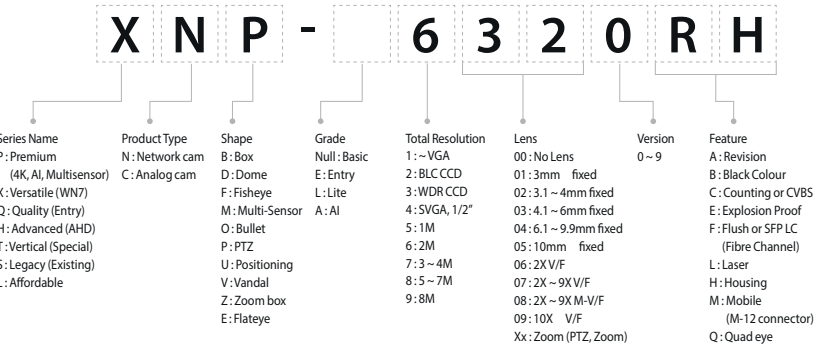
- Motion Detection
- Tampering
- Defocus Detection
- Virtual Line
- Enter/Exit
- Appear/Disappear
- Digital Auto tracking
- Directional Detection
- Fog Detection
- Loitering
- Face Detection
- Object Detection

- Sound Classification
- Audio Playback
- Audio Detection
- Shock Detection

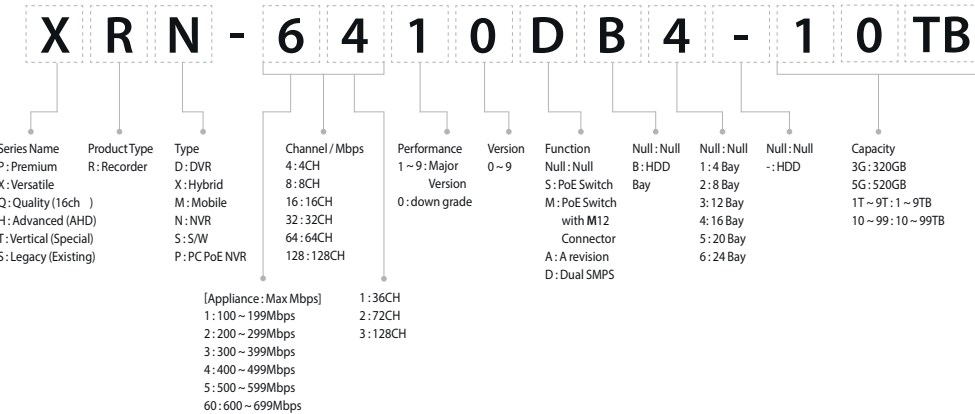
Intelligent Analytics

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

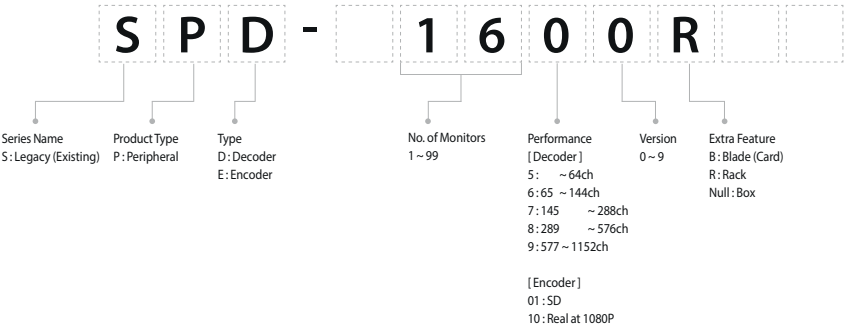
Camera



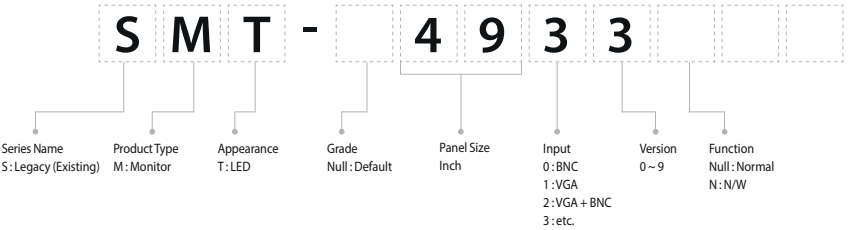
Recorder



Decoder/Encoder



Monitor



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COMING SOON

NETWORK
Cameras



ONV-9081R/ONO-9081R
OSSA Cameras



**XNP-9250R/XNP-8250R/XNP-6400R/
XNP-9250/XNP-8250/XNP-6400**
PTZ PLUS Cameras

NVR



**XRN-1620SB1/XRN-1620B2/
XRN-820S**
X SERIES 16/8CH



PRN-6410DB4
P SERIES 16 BAY

**Coming Soon: New P Series NVR
16 Bay**

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.

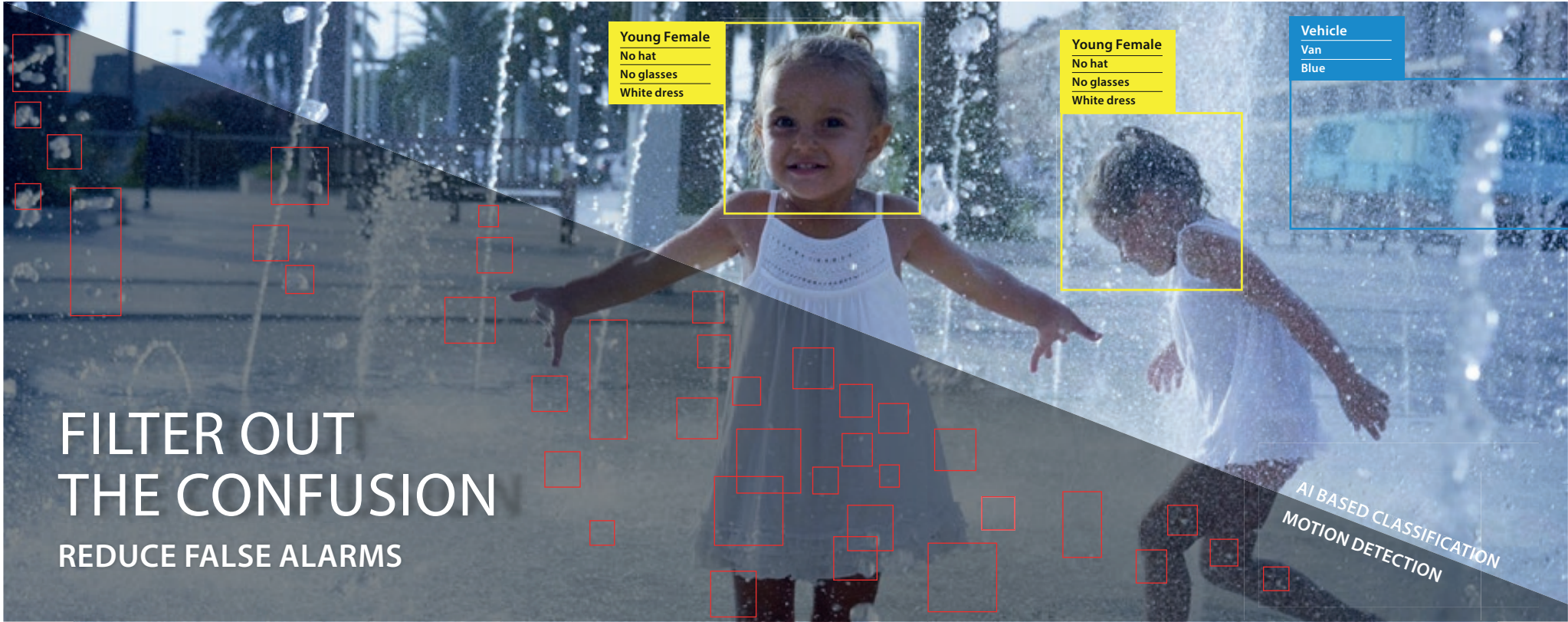
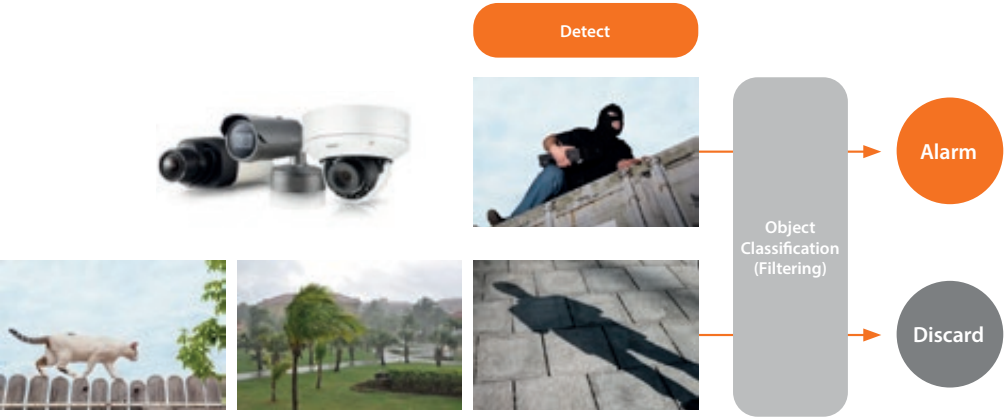
From bullet cameras to multi-sensor cameras, the P series have a wide range of products optimised for applications which require extreme details and wide area coverage.



AI Cameras

New deep learning based technology

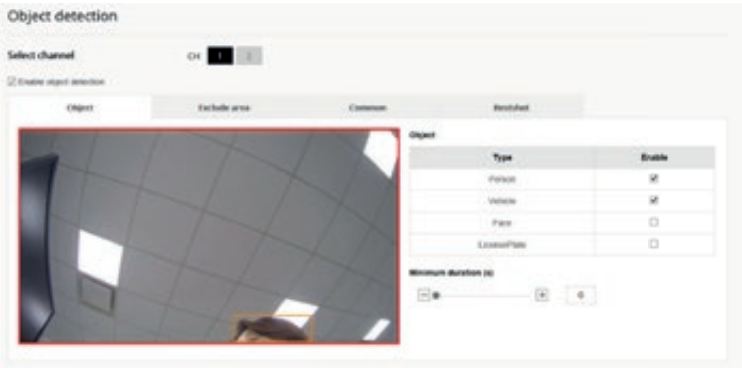
False alarm reduction through Wisenet’s deep learning based algorithm, which supports object classification. It can discard waving trees, video noise, raining, moving shadow, irreverent objects (dog, plastic bag, etc).



AI camera three main functions

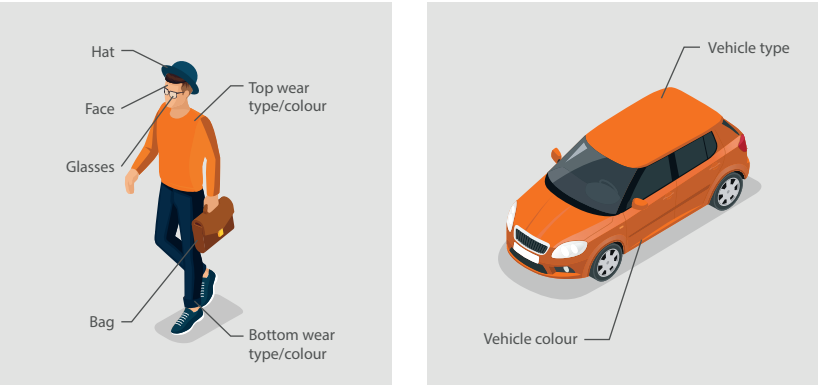
New Object Detection

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



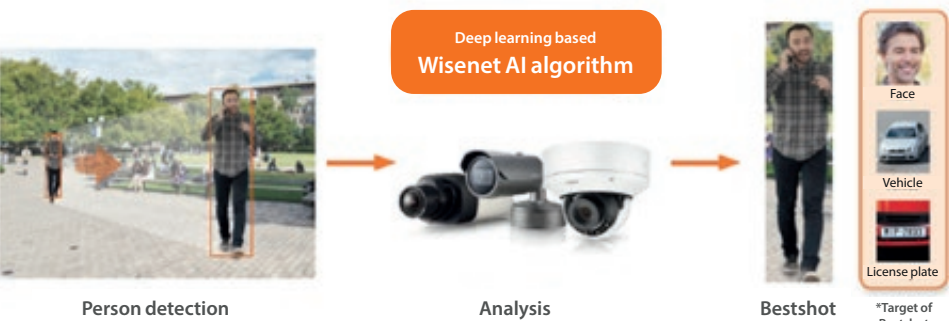
Attributes for forensic search

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



Real-time object Image capture for re-identification

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



New AI camera lineup

	4K resolution
BOX	PNB-A9001
BULLET	PNO-A9081R
VANDAL	PNV-A9081R
DOME	PND-A9081RV
DOME (FLUSH)	PND-A9081RF

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.



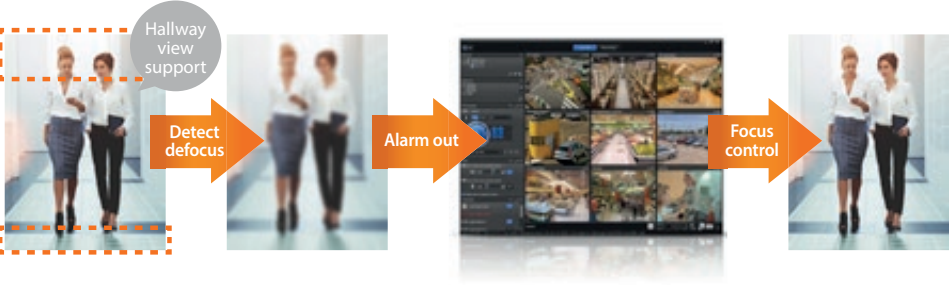
Digital Auto Tracking

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

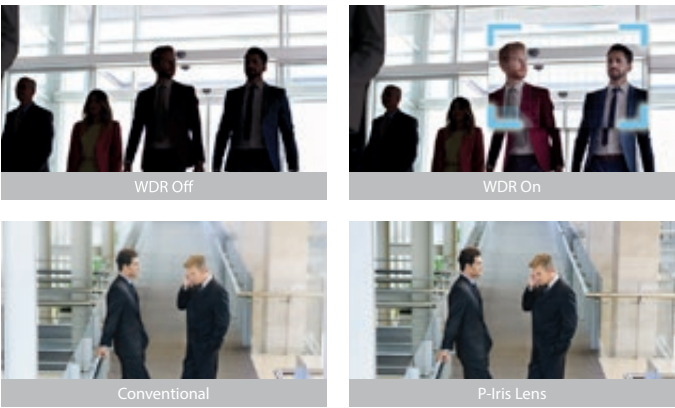
The Wisenet P series supports defocus detection, which helps to identify when an image is out of focus and significantly improves efficiency. The user can also adjust the optimal focus remotely via the network, reducing the installation/optimisation time of the camera.



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.

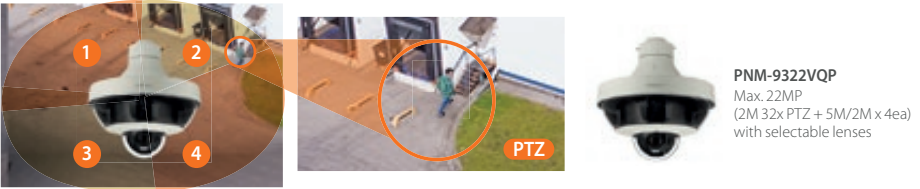
- Multi-sensor cameras can simultaneously cover a full 360° area without any blind spots. When combined with a built-in PTZ camera (PNM-9322VQP), detailed images can be obtained through the use of an effective zoom function.
- Panoramic cameras can provide a wide, panoramic view of any area by stitching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

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

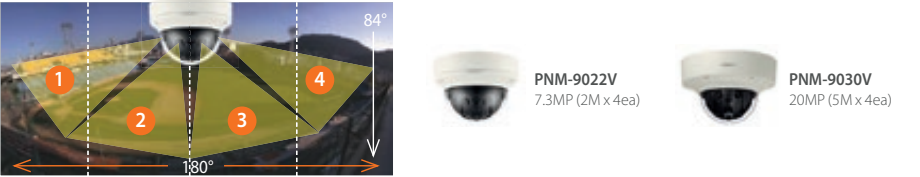
Multi-directional Cameras



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

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



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.



Four cameras in one

- PNM-9080VQ 8MP (2M x 4ea)
- PNM-9081VQ 20MP (5M x 4ea)
- PNM-9084QZ 8MP (2M x 4ea)
- PNM-9084RQZ/9085RQZ 8MP (2M x 4ea) / 20MP (5M x 4ea)
- PNM-9002VQ Max. 20MP (5M/2M x 4ea) with selectable lens modules

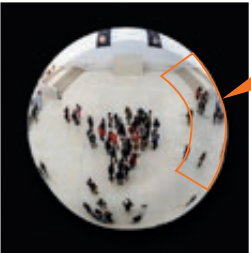
Multi-directional cameras have four sensors in one camera.

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



Natural and clearer image

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



Fisheye Camera



Low image quality and image distortion at the edges.

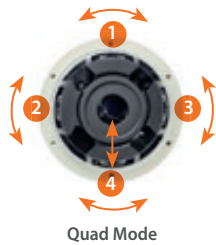


Multi-directional Camera

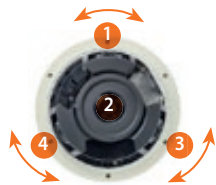
Clearer image and almost no distortion at the edges.

Flexible set-up

In addition, one of the sensors can easily be removed and attached in the centre of the camera, allowing for flexible set-up. These cameras have a separate set-up mode for each sensor. Each sensor can be set up for OSD control, privacy masking and MD control, as well as profile setting per codec as required.



Quad Mode



Centre Mode

Optimised design for indoor and outdoor environments

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



- Warehouse
- Mall entrance

- City Surveillance
- Airport

- Parking lot
- Stadium

- Square
- Distribution centre

- Crossroads
- Train station

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

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

						
	PNM-9030V 15MP 180°/220° Panoramic Camera	PNM-9022V 2MP x 4CH H.265 Panoramic 209° Camera	PNM-9020V 7.3MP 180° Panoramic Camera	PNM-9085RQZ 20MP IR Multi-Directional Camera	PNM-9084RQZ 8MP IR Multi-Directional Camera	PNM-9084QZ 8MP Multi-directional Camera
Imaging Device	1 / 2.8" 5MP CMOS x 4CH	1/2.8" CMOS x 4	7.3M (2MP x 4CH)	1/1.8" 5MP CMOS x 4CH	1/2.8" 2MP CMOS x 4CH	1/2.8" 2MP CMOS x 4CH
Min. Illumination	Colour : 0.15Lux (F2.0) B/W : 0.01Lux (F2.0)	Colour: 0.03Lux(F1.6, 1/30sec)	Colour : 0.3Lux (F2.0) B/W : 0.03Lux (F2.0)	Colour: 0.11lux(F1.6,30 IRE) BW: 0Lux(IR LED on)	Colour : 0.08lux(F2.2) BW : 0.008lux(F2.2)	Colour : 0.08lux(F2.2) BW : 0.008lux(F2.2)
Video Output	Micro USB Type B	Micro USB Type B,	-	-	-	-
Focal Length	4mm fixed	2.8mm fixed focal x 4	3.6mm fixed	4.13 ~ 9.4mm (2.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal	3 ~ 6mm (2x) motorized varifocal
Angular Field of View	[180° mode] H : 180° / V : 70° [220° mode] H : 220° / V : 52°	H: 209°, V: 83.3°	[Total 4sensor] H : 180° / V : 84°	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° ~ 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 (98.43ft)	30m (98.43ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	-	-	120dB	120dB	120dB
Digital Noise Reduction	SSNR III	SSNRV	SSNR III	SSNR V	SSNRV	SSNR V
Digital Image Stabilization	-	-	-	Support	Support	Support
Analytics	Intelligent analytics, Audio detection Sound classification	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Intelligent analytics Audio detection	Intelligent analytics, Audio detection, Motion detection, Sound Classification	Intelligent analytics, Audio detection, Motion detection, Sound Classification	Intelligent analytics Audio detection
Business Intelligence	Heatmap	Heatmap	Heatmap	-	-	-
Alarm I/O	1 / 1	Selectable 2 port	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Line in / Line out	Selectable (mic in/line in), Built-in mic / Line out	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	15.5MP / 30fps	-	7.3MP / 30fps	4x 5MP / 30fps	4x 2MP / 60fps	4x 2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 5 or 3 profiles for each CH	Up to 10 Profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, 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) * Start up above -30°C (-22°F)	Normal : -40°C~+55°(-40°F ~ +131°F) / Intermittent : -40°C~+60°C (-40°F ~ +140°F) Less than 95% RH(Non-condensing)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)
Certification	IP66, IK10	IP66, IK10, NEMA4X	IP66, IK10	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE+ : Max 25.5W 12VDC : Max 21.0W	PoE+ : Max 18W 12VDC : Max 16W	PoE+ : Max 25.5W - Heater on 12VDC : Max 21.0W - Heater on	HPoE : Max60W 12VDC : TBD	HPoE : Max 60W 12VDC : TBD	HPoE : Max 35W
Dimensions (WxHxD) / Weight	Ø253 x H165mm (Ø9.96" x 6.5") 3.2Kg (7.1lb)	Ø253x165mm (9.96"x6.5") 3200g	Ø199.0 x 143.5mm (Ø7.83" x 5.65") 2.03Kg (4.5 lb)	Ø315 x 145.9mm	Ø315 x 145.9mm	Ø251 x 116.5mm (Ø9.88" x 4.59") 3Kg (6.6 lb)
Additional Features	Defog	-	Defog	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	-	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°	-
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	Intelligent analytics	Intelligent analytics	-	-	-	-	-
Business Intelligence	-	-	-	-	-	-	-
Alarm I/O	-	2 / 2	-	-	-	-	-
Audio I/O	-	Selectable(mic in/line in) / Line out	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	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 10 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/G/T, SUNAPI(HTTP API)	-	-	-	-	-
Operating Temperature	-40°C~+55°C(-40°F~+131°F) / Less than 95% RH *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-9321VQP* Max. 20MP Multi-directional + 2MP 32x PTZ	PNM-9320VQP Max. 20MP Multi-directional + 2MP 32x PTZ	SLA-5M7000P 5MP lens for PNM-9320VQP	SLA-5M4600P 5MP lens for PNM-9320VQP	SLA-5M3700P 5MP lens for PNM-9320VQP	SLA-2M6000P 2MP lens for PNM-9320VQP	SLA-2M3600P 2MP lens for PNM-9320VQP	
Imaging Device	1/2.8" CMOS	1/2.8" 2.4MP CMOS (PTZ)	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
Min. Illumination	Colour: 0.055Lux (F2.0, 1/30sec) B/W: 0.055Lux (F2.0, 1/30sec)	Colour : 0.05Lux (F1.6) BW : 0.005Lux (F1.6) (PTZ)	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)
Video Output	CVBS : 1.0 Vp-p	CVBS 1.0 Vp-p (Multi)	-	-	-	-	-
Focal Length	1~4CH: Optional lens 5CH: 4.44~142.6mm(32x) zoom	4.44 ~ 142.6mm (Optical 32x) F1.6 (Wide) / F4.4 (Tele) (PTZ)	7.0mm fixed	4.6mm fixed	3.7mm fixed	6.0mm fixed	3.6mm fixed
Angular Field of View	H 61.8°(Wide)~2.19°(Tele), V 36.2°(Wide)~1.24°(Tele) (PTZ)	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°
Pan / Tilt / Rotate	360° Endless / 190° (-5°~185°) (PTZ)	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°
IR Viewable Length	-	-	-	-	-	-	-
Day & Night	Auto (Electrical)	Electrical (Multi), ICR (PTZ)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB (2MP), 120dB (5MP)	150dB (2MP), 120dB (5MP)	120dB	120dB	120dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	-	-	-	-	-
Digital Image Stabilization	Support	Support (Built-in Gyro sensor - PTZ)	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics * Defocus detection (Multi)	-	-	-	-	-
Business Intelligence	-	-	-	-	-	-	-
Alarm I/O	1 / 2	1 / 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	2MP / 60fps, 5MP / 30fps	5MP / 30fps, 2MP / 60fps	-	-	-	-	-
WiseStream	WiseStream II	WiseStream II	-	-	-	-	-
Streaming	Up to 10 Profiles	Up to 10 Profiles	-	-	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	-	-	-	-	-
Application Programming Interface	ONVIF Profile S, SUNAPI(HTTP API)	ONVIF Profile S, SUNAPI	-	-	-	-	-
Operating Temperature	-35°C~+55°C (-31°F ~ +131°F) Less than 90% RH	-35°C ~ +55°C (-31°F ~ +131°F)	-	-	-	-	-
Certification	IP66, IK10	IP66, IK10	-	-	-	-	-
Power Consumption	HPoE: Max 65W	HPoE : Max 65W	-	-	-	-	-
Dimensions (WxHxD) / Weight	Ø367.8x335.7mm (Ø144.8"x132.2") 7.05kg(15.54lb)	Ø367.8 x 381.5mm (Ø144.49" x 15.02") 7.05kg (16.1 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	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	Exchangeable 4ea x 2MP / 5MP lens modules, Hallway view, Defog	-	-	-	-	-

						
SLA-2M2800P 2MP lens for PNM-9320VQP	SLA-2M2400P 2MP lens for PNM-9320VQP	SLA-2M1200P 2MP lens for PNM-9320VQP	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
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	-	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS
Min. Illumination	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 : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	-	-	-	CVBS 1.0 Vp-p	-	-
Focal Length	2.8mm fixed	2.4mm fixed	12mm fixed	-	7.0mm fixed	4.6mm fixed
Angular Field of View	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°	-	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°
Pan / Tilt / Rotate	±90° / +26° ~ +80° / ±180°	±90° / +52° ~ +56° / ±180°	±90° / +10° ~ +97° / ±180°	-	±90° / 40° ~ 89° / ±180°	±90° / 50° ~ 80° / ±180°
IR Viewable Length	-	-	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB (2MP), 120dB (5MP)	120dB	120dB
Digital Noise Reduction	-	-	-	SSNRV	-	-
Digital Image Stabilization	-	-	-	Support	-	-
Analytics	-	-	-	Intelligent analytics	-	-
Business Intelligence	-	-	-	-	-	-
Alarm I/O	-	-	-	-	-	-
Audio I/O	-	-	-	-	-	-
Video Compression	-	-	-	H.265, H.264, MJPEG	-	-
Resolution / Max. Frame Rate	-	-	-	5MP / 30fps, 2MP / 60fps	-	-
WiseStream	-	-	-	WiseStream II	-	-
Streaming	-	-	-	Up to 10 Profiles	-	-
Edge Storage	-	-	-	SD/SDHC/SDXC	-	-
Application Programming Interface	-	-	-	ONVIF Profile S/T, SUNAPI(HTTP API)	-	-
Operating Temperature	-	-	-	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	-	-
Certification	-	-	-	IP66, IK10	-	-
Power Consumption	-	-	-	PoE+: Max 25.5W	-	-
Dimensions (WxHxD) / Weight	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)	Ø253mmx130mm, 3000g	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)
Additional Features	-	-	-	Exchangeable 4ea x 2MP / 5MP lens modules, Hallway view, Defog	-	-

							
	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	PNM-9000VD 10MP Multi-directional Camera	SLA-5M7000D 5MP lens for PNM-9000VD	SLA-5M4600D 5MP lens for PNM-9000VQ
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	-	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS
Min. Illumination	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 : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	-	-	-	-	CVBS 1.0 Vp-p	-	-
Focal Length	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed	-	7.0mm fixed	4.6mm fixed
Angular Field of View	H : 50.4° / V : 28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122.0°	H : 135.4° / V : 71.2° / D : 161.6°	-	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°
Pan / Tilt / Rotate	±90° / 30° ~ 89° / ±180°	±90° / 37° ~ 89° / ±180°	±90° / 40° ~ 89° / ±180°	±90° / 62° / ±180°	-	±90° / 36° ~ 73° / ±180°	±90° / 36° ~ 73° / ±180°
IR Viewable Length	-	-	-	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB	120dB	120dB	120dB
Digital Noise Reduction	-	-	-	-	SSNRV	-	-
Digital Image Stabilization	-	-	-	-	Support	-	-
Analytics	-	-	-	-	Intelligent analytics	-	-
Business Intelligence	-	-	-	-	-	-	-
Alarm I/O	-	-	-	-	-	-	-
Audio I/O	-	-	-	-	-	-	-
Video Compression	-	-	-	-	H.265, H.264, MJPEG	-	-
Resolution / Max. Frame Rate	-	-	-	-	5MP / 30fps	-	-
WiseStream	-	-	-	-	WiseStream II	-	-
Streaming	-	-	-	-	Up to 10 Profiles	-	-
Edge Storage	-	-	-	-	Micro SD/SDHC/SDXC	-	-
Application Programming Interface	-	-	-	-	ONVIF Profile S/G, SUNAPI, Wisenet open platform	-	-
Operating Temperature	-	-	-	-	-40°C ~ +55°C (-40°F ~ +131°F)	-	-
Certification	-	-	-	-	IP66, IK10	-	-
Power Consumption	-	-	-	-	PoE : 12.95W	-	-
Dimensions (WxHxD) / Weight	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)	Ø197.6 x 84mm (Ø7.78" x 3.31") 1250g (2.76 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)
Additional Features	-	-	-	-	Exchangeable 2ea x 5MP lens modules, Hallway view, Defog	-	-

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

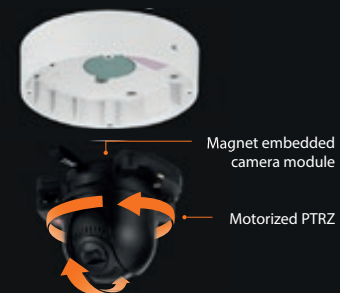
WISeNeT X PLUS

2MP/5MP Modular Camera

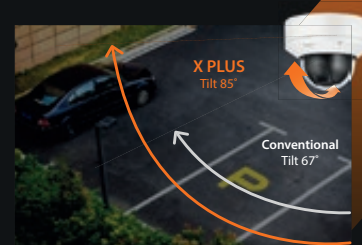
Faster installation x Reduced costs
Advanced performance x Multiplied values

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

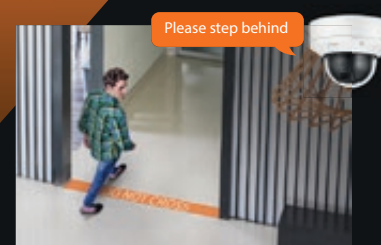
With extended tilt range, motorized PTRZ and optional skin covers, you will soon discover why X Plus is one of the most versatile camera lines on the market.



Modular structure
And motorized PTRZ



Extended tilt range for
greater flexibility

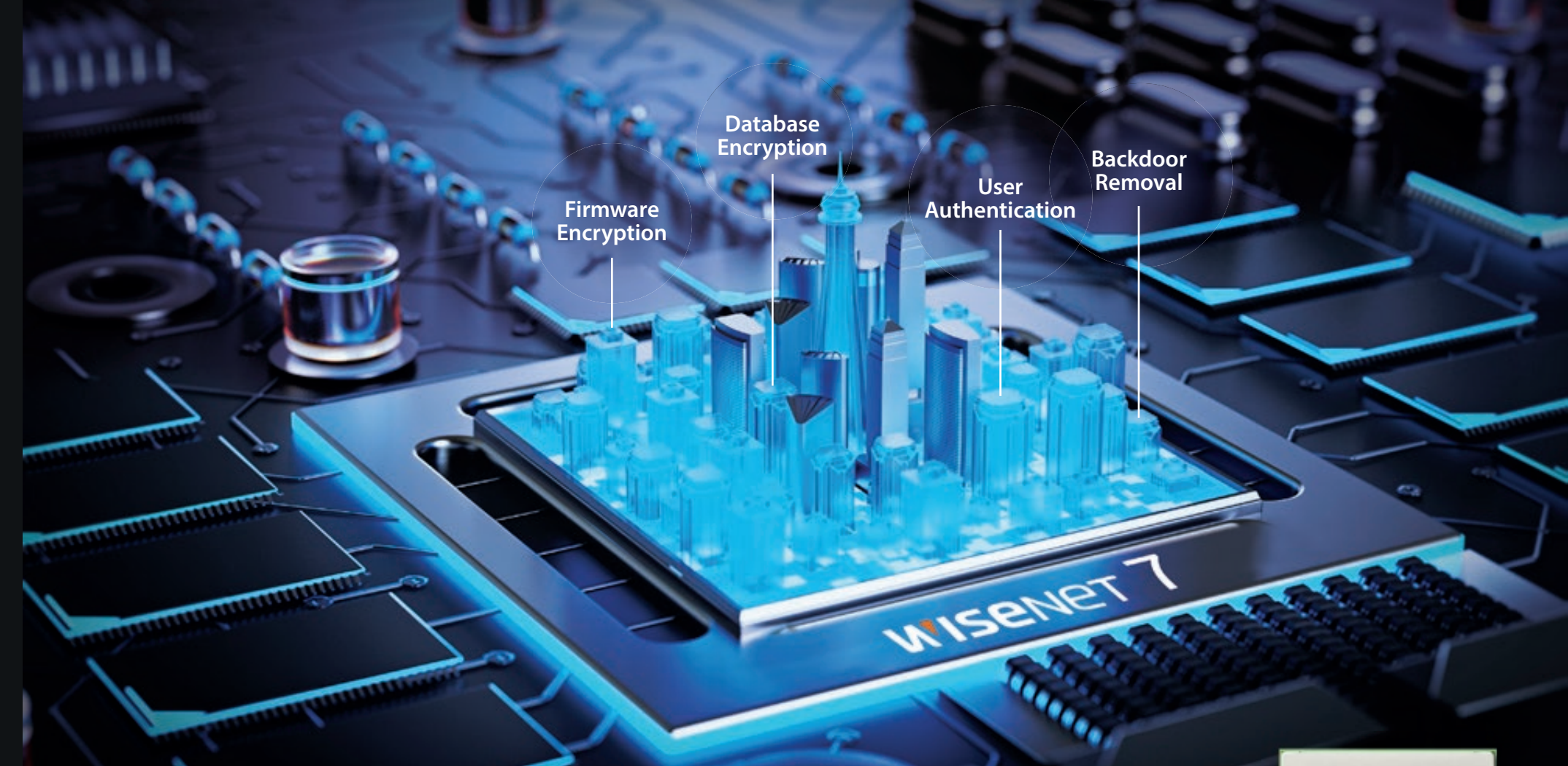


Audio playback on event



Weather Cap Black & Ivory Skin Cover

Optional accessories



Firmware
Encryption

Database
Encryption

User
Authentication

Backdoor
Removal

WISeNeT 7

A New World of Cyber Security

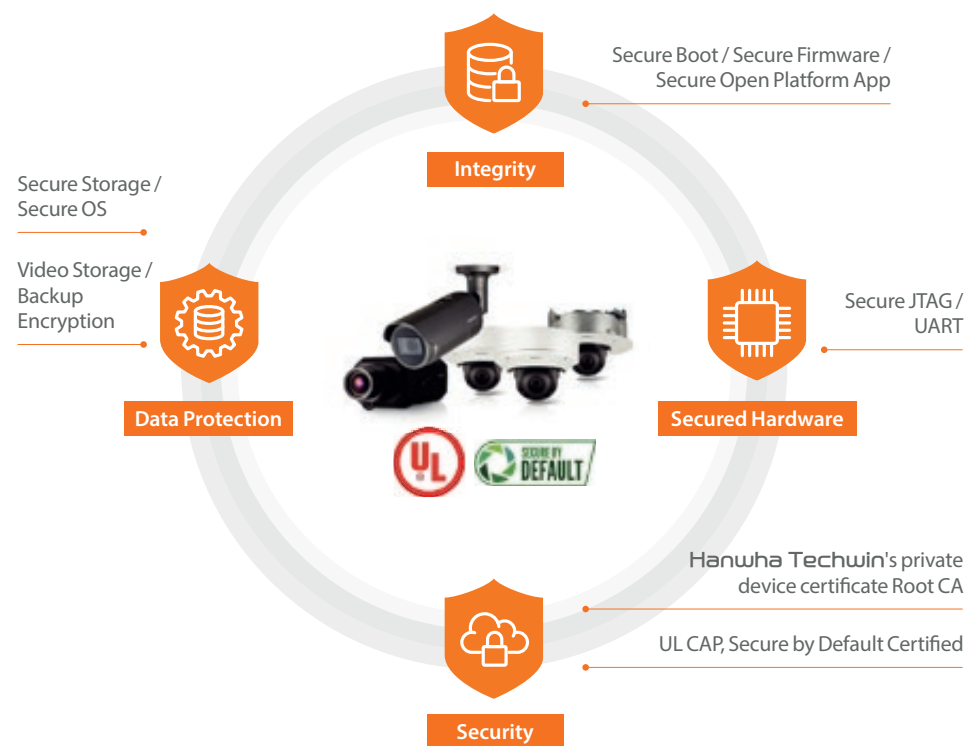
Exceptional cyber protection from the latest generation SoC

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



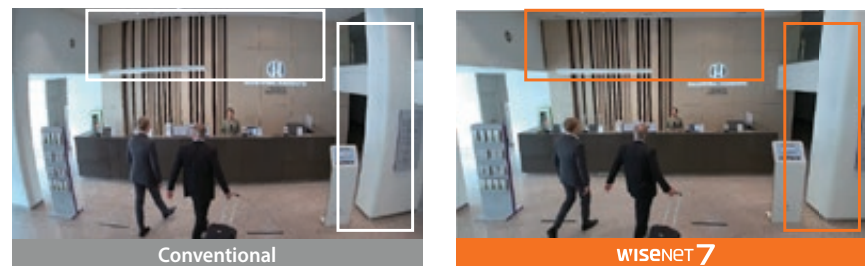
End-to-End Cybersecurity

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.



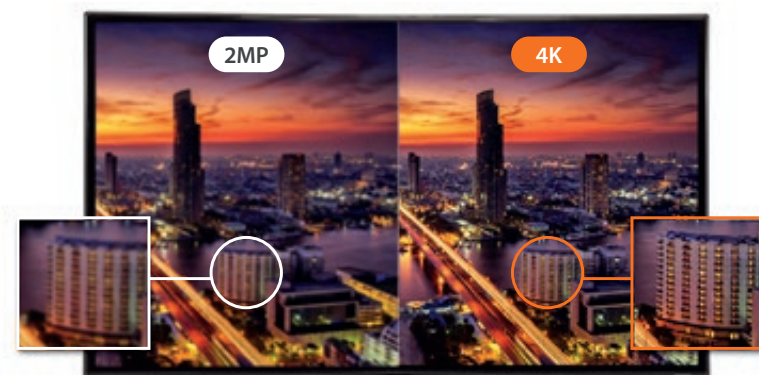
Realistic image without image distortion

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

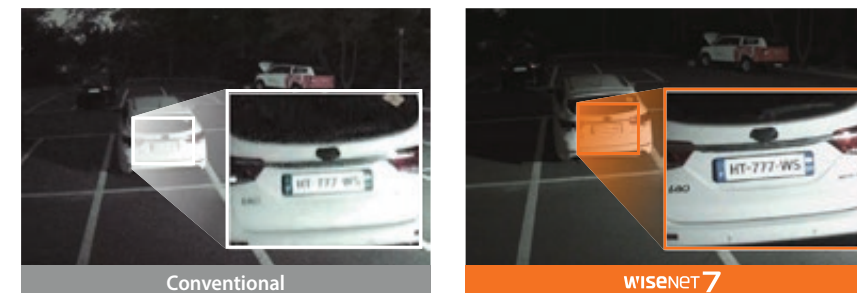
Wisenet7 camera devices provide clear and vivid images in resolutions of up to 4K suitable for forensic search applications.



NETWORK

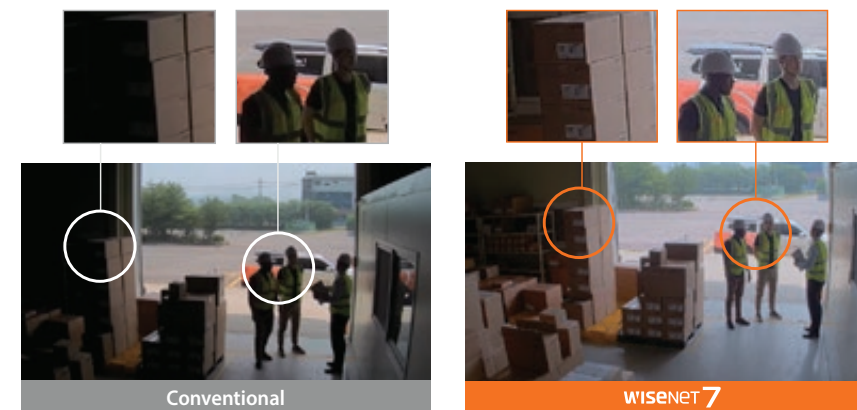
Sharper images with enhanced noise reduction technology

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.



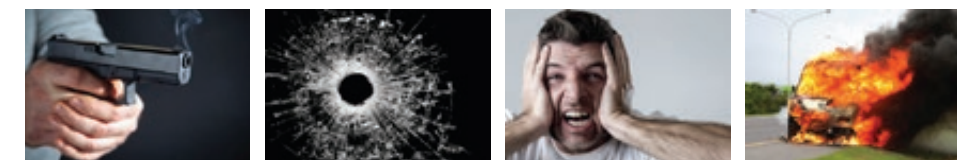
Vector-based OSD

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.



	 XNB-9002 4K Network Box Camera	 XND-9082RV 4K Network IR Dome Camera	 XND-9082RF 4K Network IR Dome Camera	 XNV-9082R 4K Network IR Vandal Dome Camera	 XNO-9082R 4K Network IR Bullet Camera
Imaging Device	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS	1/2.8"CMOS
Min. Illumination	Colour: 0.05Lux(F1.2, 1/30sec) B/W: 0.005Lux	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	-	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal
Angular Field of View	-	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	-	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)
Day & Night	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)	Auto(ICR)
Wide Dynamic Range	extremeWDR	extreme WDR	extreme WDR	extreme WDR	extreme WDR
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection, Face/upper body detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in/Built-in mic)	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265/H.264: Main/High, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)	Micro SD/SDHC/SDXC 2slots (512GB)
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing) * 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	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C
Certification	-	IP52, IK10	IP52, Plenum rate, IK10	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP66/IP67, IK10, NEMA4X
Power Consumption	PoE: typ 8.2W, Max 12.95W 12VDC: typ 7.5W, Max 11.5W 24VAC: typ 8.9W, Max 13.5W	PoE: typ 10.7W, max 12.95W 12VDC: typ 9.0W, max 11.5W	PoE: typ 10.7W, max 12.95W 12VDC: typ 9.0W, max 11.5W	PoE: typ 10.7W, max 12.95W 12VDC: typ 9.0W, max 11.5W 24VAC: typ 11.0W, max13.5W	PoE: typ 10.5W, max 12.95W 12VDC: typ 9.4W, max 12.5W 24VAC: typ 11.2W, max14.5W
Dimensions (WxHxD) / Weight	Ø81 x 165 x 67mm (Ø3.19 x 6.48 x 2.64") 0.88kg	Ø160 x125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	Ø205 x163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø180 x 125mm (Ø8.07" x 4.92") 1.9kg (4.18lb)	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)
Additional Features	-	-	-	-	-

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

WISENET X | PTZ PLUS

INTELLIGENCE MAGNIFIED

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

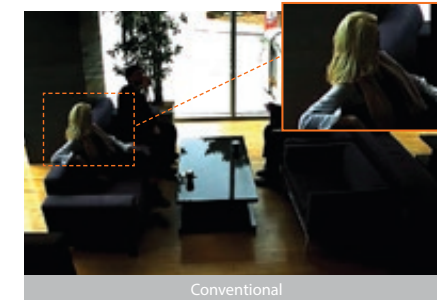
- Monitor and Identify objects with optical 40x, 30x Zoom
- Up to 200 meters with Wise IR
- Enhanced Preset Accuracy $\pm 0.1^\circ$
- Quick Pan / Tilt correction (within 1 second)
- Easy and Safe Installation with Compact Design and Lighter Camera
- AI Deep Learning based Object Auto Tracking (Optional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



WISENET X series

True WDR performance(150dB)

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



Conventional

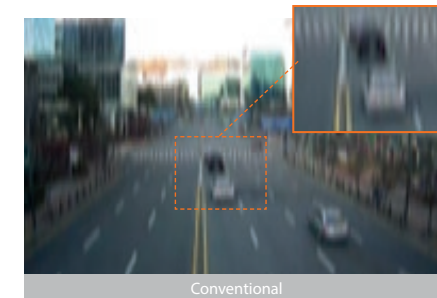


Wisenet X series

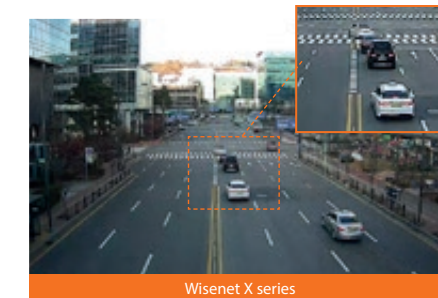
※ 150dB WDR only available in ZMP X series

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.



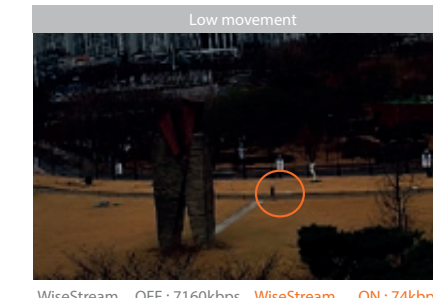
Conventional



extraLUX(XNV-6085)

Improve bandwidth by using WiseStream

Using WiseStream, 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 OFF : 7160kbps WiseStream ON : 74kbps

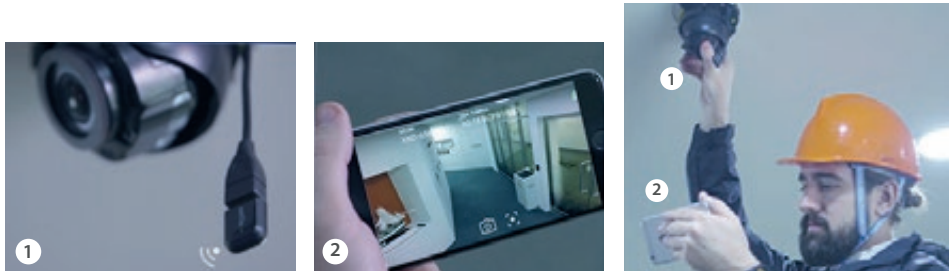


WiseStream OFF : 7260kbps WiseStream ON : 1817kbps

WISENET

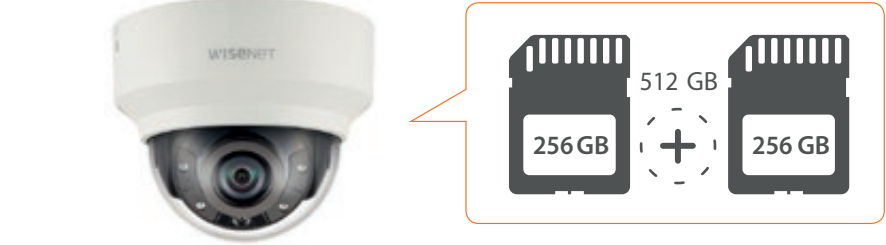
Simple installation with USB

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

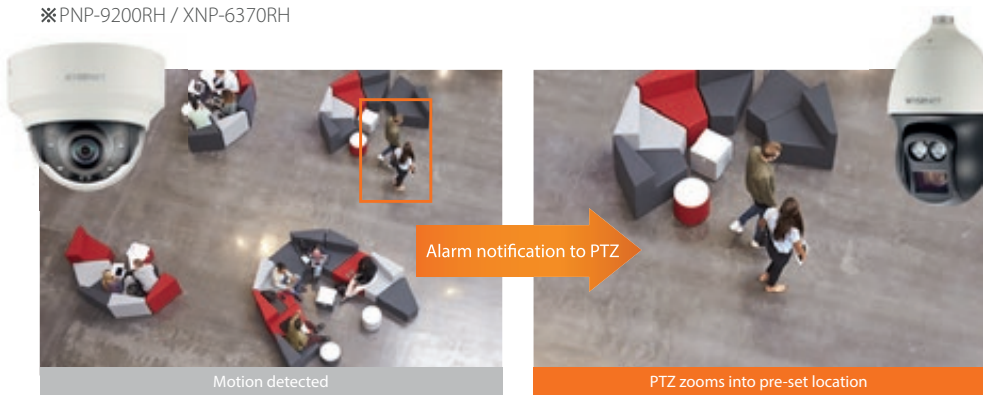
Keep data safe in the event of an unstable network by saving up to 512 GB automatically to the camera with Dual SD Slots.



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.

※PNP-9200RH / XNP-6370RH



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.

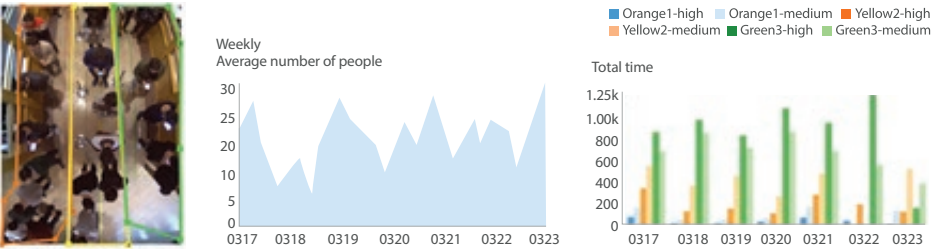
Loitering detection

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



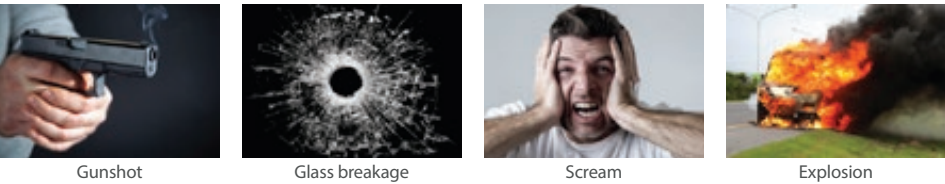
Queue management

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.



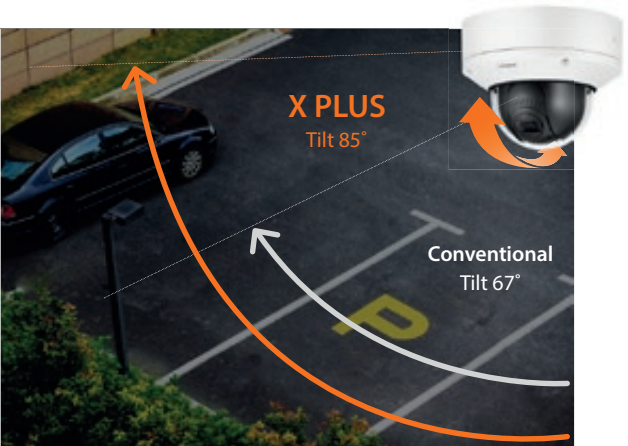
People counting and Heat map

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	SBC-160B	SPC-100AC	SBP-187HMMW	SBP-167HMMW
Skin cover Compatible with XNV-6081Z/8081Z	Skin cover Compatible with XND-6081Z/8081Z	AC24V power module Compatible with XNV-6081Z/8081Z	Hanging mount Compatible with XNV-6081Z/8081Z	Hanging mount Compatible with XND-6081Z/8081Z
				
SBP-300WMW1	SBP-300KMW	SBP-300PMW	SBP-300CMW	
Wall mount Compatible with SBP-180HMMW/160HMMW	Corner mount Compatible with SBP-300WMW1	Pole mount Compatible with SBP-300WMW1	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 Dome Camera
Imaging Device	1/1.8" 6MP CMOS	1/1.8" 5MP CMOS	1/1.8" 5MP CMOS	1/1.8" 6MP CMOS	1/1.8" 6MP CMOS	1/1.8" 6MP CMOS
Min. Illumination	Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Colour : 0.07Lux (F1.2, 1/30sec) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-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	CVBS 1.0Vp-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 25.5W (Main CAM + Extension CAM) Typical 10.2W (Main CAM)
Dimensions (WxHxD) / Weight	Ø73.1 x 66.6 x 147.8mm (Ø2.88" x 2.62" x 5.82") 420g (0.93lb)	Ø91.0 x 368.6mm (Ø6.3" x 4.67") 2.18Kg (4.81lb)	Ø70.0 x 296mm (Ø2.76" x 11.65") 1.22kg (2.69lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.20lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.85kg (4.08lb)	Ø160 x 125mm (6.30" x 4.92") 1.45 kg (3.20 lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, PoE out: Max 12.95W at 80meters using CAT5/5E cable

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 1.0Vp-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
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 (3.20 lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97 lb)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 628g (1.38lb) (XND-8080R) 732g (1.61lb) (XND-8080RV)	Ø110.0 x 90.0mm (Ø4.33" x 3.54") 380g (0.84lb)	Ø98.9 x 129.1mm (Ø3.89" x 5.08") 275g (0.61lb)
Additional Features	Modular structure, Anti dust	Modular structure, Anti dust	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

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XNV-8081Z
5MP Vandal Dome Camera

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XNV-8081RE
5MP Vandal Dome Camera

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XNV-8081R
5MP IR Vandal Dome Camera



XNV-8080R
5MP IR Vandal Dome Camera



XNV-8080RS
5MP Stainless 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" 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) B/W : 0Lux (IR LED on)
Video Output	Micro USB Type B	Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	3.6~9.4mm(2.6x) motorized varifocal	3.9~9.4mm(2.4x) motorized varifocal	3.9~9.4mm (2.4x) motorized varifocal	3.9~9.4mm (2.4x) motorized varifocal	3.9~9.4mm (2.4x) motorized varifocal
Angular Field of View	H : 102.5° (Wide) ~ 38.7° (Tele) / V : 74.2° (Wide) ~ 29.0° (Tele) / D : 135.5° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)
Pan / Tilt / Rotate	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Off / On (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Line-in (external mic) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up should be done at above -35°C((-35°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)
Certification	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP66, IP67, IP6K9K, IK10+, NEMA 4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, NEMA4X, IK10	IP66, IK10+, NEMA4X
Power Consumption	PoE : Max 12.3W 12VDC : Max 10W 24VAC : Max 12.3W	PoE+: Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM)	PoE : Max 12.95W 12VDC : Max 11.7W 24VAC : Max 14.9W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W
Dimensions (WxHxD) / Weight	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.75 kg (3.86 lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø160.0 x 118.5mm (Ø6.3" x 4.67") 1.01kg (2.23lb)	Ø160 X 120.5mm (Ø6.38" x 4.74") 2.8kg (6.17lb)
Additional Features	Modular structure, Motorized PTRZ	Modular structure, PoE out: Max 12.95W at 80meters using CAT5/5E cable	Modular structure	Handover, Hallway View	Handover, Hallway View SUS316L construction



XNV-8020R/8030R/8040R
5MP IR Vandal Dome Camera



XNF-9010RV/9010RVM
12MP IR Fisheye Camera



XNF-8010R/8010RV/8010RVM
6MP IR Fisheye Camera



XNZ-6320
2MP 32x Zoom Camera



XNZ-L6320
2M H.265 NW 32x Zoom Camera

Imaging Device	1/1.8" 6MP CMOS	1/2.3" 12MP CMOS	1/1.8" 6MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour: 0.39 Lux (F2.2, 1/30sec) B/W : 0Lux (IR LED on)	Colour : 0.1Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)	Colour: 0.05 lux(F1.6, 1/30sec) B/W: 0.005 lux(F1.6, 1/30sec)
Video Output	CVBS 1.0 Vp-p, Micro USB type B	CVBS 1.0 Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0 Vp-p, Micro USB type B	CVBS: 1.0 Vp-p
Focal Length	3.7mm fixed (XNV-8020R) 4.6mm fixed (XNV-8030R) 7.0mm fixed (XNV-8040R)	1.08mm fixed focal	1.6mm fixed	4.44 ~ 142.6mm (32x Optical zoom / 32x Digital zoom)	4.44~142.6mm(32x) motorized varifocal
Angular Field of View	H : 97.5° / V: 71.9° / D: 126.2° (XNV-8020R) H : 77.9° / V: 57.9° / D: 98.7° (XNV-8030R) H : 50.7° / V: 37.8° / D: 63.8° (XNV-8040R)	H: 187° / V: 187° / D: 187°	H : 192° / V : 192° / D : 192°	H : 61.8° (Wide) ~ 2.19° (Tele) / V : 36.2° (Wide) ~ 1.24° (Tele)	H: 61.8°(Wide)~2.19°(Tele) / V: 36.2°(Wide)~1.24°(Tele)
Pan / Tilt / Rotate	0°~ 354° / 0°~ 67° / 0°~ 355°	-	-	-	-
IR Viewable Length	30m (98.43ft)	10m(32.8ft), Wise IR	15m (49.21ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	extremeWDR (120dB)	120dB	150dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	-	Support (Built-in Gyro sensor)	Support
Analytics	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification, Shock detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Digital auto tracking, Appear/Disappear, Enter/ Exit, Loitering, Tampering, Virtual line, Audio detection, Sound classification
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	-
Alarm I/O	1 / 1	2 configured I/O	1 / 1	1 / 2	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable(mic in/line in/built-in mic) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	-	2048 x 2048 / 30fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F)	-40°C ~ +60°C (-40°F ~ +140°F) Less than 95% RH	-10°C ~ +55°C (+14°F ~ +131°F) (XNF-8010R) -40°C ~ +55°C (-40°F ~ +131°F) (XNF-8010RV/8010RVM)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66, IP67, IK10	IP66, IK10, NEMA4X	IP66, IK10 (XNF-8010RV/8010RVM)	-	-
Power Consumption	PoE : Max 9.00W 12VDC: Max 8.00W	PoE: Max 12.95W 12VDC: Max 11W	PoE : Max 12W, 12VDC : Max 11W (XNF-8010R) PoE : Max 12.95W, 12VDC : Max 12W (XNF-8010RV/8010RVM)	PoE : Max 7W 12VDC : Max 6.7W	PoE : Max 6.8W, Typical 4.8W 12VDC : Max 5.2W, Typical 3.5W
Dimensions (WxHxD) / Weight	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 615g (1.36lb)	Ø160x72mm (62.99x28.35") 1100g(2.43lb)	Ø146 x 54.8mm (Ø5.75" x 2.16"), 730g (1.61 lb) (XNF-8010R) Ø146 x 65.8mm (Ø5.75" x 2.59") 785g (1.73 lb) (XNF-8010RV) 790g (1.74 lb) (XNF-8010RVM)	96 x 76 x 143.5mm (3.78" x 2.99" x 5.65") 578g (1.274 lb)	72x63.9x135.4mm (2.83x2.52x5.33") 480g(1.06 lb)
Additional Features	Handover, Hallway View	-	M12 Connector (XNF-8010RVM), Built-in MIC, On board dewarping	Defog, SFP Slot	Defog, Handover



XNB-6005
2MP Box Camera (extraLUX)



XNB-6000
2MP Box Camera



XNB-6001
2MP Remote Head Camera



SLA-T4680
2MP lens for XNB-6001



SLA-T4680V
2MP lens for XNB-6001

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

	 SLA-T2480 2MP lens for XNB-6001	 SLA-T2480V 2MP lens for XNB-6001	 SLA-T1080F 2MP lens for XNB-6001	 XNO-6120R* 2MP IR Bullet Camera	 XNO-6085R 2MP IR Bullet Camera (extraLUX)	 XNO-6080R 2MP IR Bullet Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2" 2,17MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.45Lux (F2.0) B/W : 0.45Lux (F2.0)	Colour : 0.45Lux (F2.0) B/W : 0.45Lux (F2.0)	Colour : 0.03Lux (F1.6)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.004Lux (F0.94) B/W : 0Lux (IR LED on)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)
Video Output	-	-	-	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.4mm fixed	2.4mm fixed	1.6mm fisheye No Dewarping	5.2 ~ 62.4mm (Optical 12x)	4.1 ~ 16.4mm (Optical 4x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 138° / V : 73° / D : 168°	H : 138° / V : 73° / D : 168°	H : 187° / V : 113.9°	H : 54.58° (Wide) ~ 5.30° (Tele) / V : 32.19° (Wide) ~ 3.00° (Tele) / D : 61.40° (Wide) ~ 6.06° (Tele)	H : 100° (Wide) ~ 26.2° (Tele) / V : 54° (Wide) ~ 14.8° (Tele) / D : 116° (Wide) ~ 30.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	-	-	-	-	-	-
IR Viewable Length	-	-	-	70m (229.66ft)	70m (229.66ft)	50m (164.04ft)
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	-	-	-	150dB	150dB	150dB
Digital Noise Reduction	-	-	-	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	-	-	-	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support
Analytics	-	-	-	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification
Business Intelligence	-	-	-	-	-	-
Alarm I/O	-	-	-	1 / 1	1 / 1	1 / 1
Audio I/O	-	-	-	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	-	-	-	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	-	-	-	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	-	-	-	WiseStream II	WiseStream II	WiseStream II
Streaming	-	-	-	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	-	-	-	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	-	-	-	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)"	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)
Certification	-	-	-	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10
Power Consumption	-	-	-	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 12.95W	PoE : Max 12.95W 12VDC : Max 12W 24VAC : Max 15W
Dimensions (WxHxD) / Weight	Ø24 x 49.8mm (Ø0.94" x 1.96") (Lens) 8m (314.96") (Cable) 318g (0.70 lb)	30 x 27.9 x 45mm (1.18" x 0.10" x 1.77") (Lens) 8m (314.96") (Cable) 328g (0.72 lb)	Ø35 x 68.9mm (Ø1.38" x 2.71") (Lens) 8m (314.96") (Cable) 321g (0.71 lb)	Ø91.0 x 368.6mm (Ø3.58" x 15.30") 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)
Additional Features	-	-	-	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

	 XNO-L6080R 2MP IR Bullet Camera	 XNO-6010R/6020R 2MP IR Bullet Camera	 XND-6085/6085V 2MP Dome Camera (extraLUX)	 X PLUS 2MP Dome Camera	 X PLUS 2MP Flush Mount Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2" 2,17MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.1Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.055lux (F2.0) (XNO-6010R) Colour : 0.015Lux (F1.4) (XNO-6020R) B/W: 0 Lux (IR LED On)	Colour : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	2.4mm fixed (XNO-6010R) 4mm fixed (XNO-6020R)	4.1~16.4mm (Optical 4x)	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)	H : 139.0° / V : 73.0° / D : 167.0° (XNO-6010R) H : 88.6° / V : 47.5° / D : 104.8° (XNO-6020R)	H : 100° (Wide) ~ 26.2° (Tele) / V : 54° (Wide) ~ 14.8° (Tele) / D : 116° (Wide) ~ 30.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	-	-	±175° / ±73° / ±175°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	30m (98.42ft)	20m (65.62ft) (XNO-6010R) 30m (98.43ft) (XNO-6020R)	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	150dB	-	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection, Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback, Shock detection
Business Intelligence	-	People counting, Queue management, Heatmap	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	-	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	-	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)
Certification	IP66, IK10	IP67, IP66, NEMA 4X, IK10	IK08	IP52, IK10	IP52, Plenum rate
Power Consumption	PoE : Max. 11W	PoE : Max 9.7W 12VDC : Max 8.8W	PoE : Max 10.2W 12VDC : Max 8.6W	PoE : Max 7.0W 12VDC : Max 5.40W	PoE : Max 7.0W 12VDC : Max 5.40W
Dimensions (WxHxD) / Weight	Ø91 x 322.9mm (Ø3.58" x 12.71") 1.29Kg (4.25 lb)	Ø70 x 301.5mm (Ø2.76" x 11.87") (XNO-6010R) Ø70 x 296mm (Ø2.76" x 11.65") (XNO-6020R) 1.22Kg (2.69 lb)	Ø160.0 x 140.0mm (Ø6.30" x 5.51") 1.10 kg (2.43 lb) (XND-6085) 1.25 kg (2.76 lb) (XND-6085V)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Modular structure, Anti dust	Modular structure, Anti dust

X PLUS



XND-6081VZ
2MP Dome Camera

X PLUS



XND-6081FZ
2MP Flush Mount Dome Camera

X PLUS



XND-6081REV
2MP IR Dome Camera

X PLUS



XND-6081RV
2MP IR Dome Camera

X PLUS



XND-6081RF
2MP Flush Mount IR Dome Camera

Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0 Lux (IR LED on)	Colour : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)
Video Output	Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	±175° / 0 ~ 85° / ±175° (Remote)	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	-	-	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Off / On (built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)
Certification	IP52, IK10	IP52, Plenum rate	IP52, IK10	IP52, IK10	IP52, Plenum rate
Power Consumption	PoE : Max 10W 12VDC : Max 8.5W	PoE : Max 10W 12VDC : Max 8.5W	PoE+: Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM)	PoE : Max 12.95W 12VDC : Max 10.8W	PoE : Max 12.95W 12VDC : Max 10.8W
Dimensions (WxHxD) / Weight	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.85kg (4.08lb)	Ø160 x 125mm (6.30" x 4.92") 1.45 kg (3.20 lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø5.54" x 4.45") 1.80kg (3.97lb)
Additional Features	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, PoE out: Max 12.95W at 80 meters using CAT5/SE cable	Modular design, Anti dust	Modular design, Anti dust



XND-6080/6080V
2MP Dome Camera



XND-6080R/6080RV
2MP IR Dome Camera



XND-L6080R
2MP IR Dome Camera



XND-6020R
2MP IR Dome Camera



XND-6011F
2MP Flush Mount Dome Camera



XND-6010
2MP Dome Camera

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

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

	 XNV-6081RE 2MP 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	 XNV-6080RSA 2M Stainless 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	1/2.8"CMOS
Min. Illumination	Colour : 0.015Lux (F1.4, 1/30sec) B/W : 0 Lux (IR LED on)	Colour : 0.015Lux (F1.4) BW : 0Lux (IR LED)	Colour : 0.015 Lux (F1.4) B/W : 0.0015 Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0.015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour: 0.015Lux(F1.4, 1/30sec) BW: 0Lux(IR LED on)
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	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	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	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° ~ 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)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support	Support
Analytics	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection Sound classification, Audio Playback Shock detection	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 2slot 512GB
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) Wisenet open platform
Operating Temperature	-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)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH
Certification	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10	IP66, IP6K9K, NEMA4X, IK10+
Power Consumption	PoE+: Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM)	PoE : Max 12.95W 12VDC : Max 10.8W 24VAC : Max 13.3W	PoE : Max 7.0W 12VDC : Max 5.4W 24VAC : Max 7.1W	PoE : Max 7.8W 12VDC : Max 7W 24VAC : Max 8.2W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE: Max 12.95W 12VDC: Max 11.5W 24VAC: Max 14W
Dimensions (WxHxD) / Weight	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.45kg (3.20lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 985g (2.17 lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 995g (2.19 lb)	Ø162x120.5mm (Ø6.38x4.74") 2.8kg(6.17lb)
Additional Features	Modular structure, PoE out: Max 12.95W at 80meters using CAT5/5E cable	Modular structure	Modular structure	Handover, Hallway View	Handover, Hallway View	



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" 2MP CMOS	1/2 .8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.1Lux (F1.6) B/W : 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 1.0Vp-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	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 : 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°	±5° / 0° ~ 67° / ±90°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	±5° / ±10° / ±90°
IR Viewable Length	-	30m (98.43ft)	15m (49.21ft)	30m (98.43ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)
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	-
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
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 5 Profiles	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/ SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40°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, IK10	IP66, IK10	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP67, IP6K9K, IK10, NEMA4X
Power Consumption	PoE : Max 8W	PoE : Max 11W	PoE : Max 6.70W	PoE : Max 9W 12V DC : Max 8W	PoE : Max 7.20W
Dimensions (WxHxD) / Weight	Ø160.0 x 118.5mm (Ø6.3" x 4.67") 940g (2.1 lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 940g (2.07 lb)	98.9 x 52.0 x 100.0mm (3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 615g (1.36 lb)	103.7 x 72.3 x 126.8mm (4.08" x 2.85" x 4.99") 478g (1.04 lb)
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

X | PTZ PLUS

NEW



XNP-9300RW
4K Network 30x IR PTZ - built-in wiper

X | PTZ PLUS

NEW



XNP-8300RW
6MP Network 30x IR PTZ - built-in wiper

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
Min. Illumination	Colour : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.04Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (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)
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	5~150mm(30x) 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)~2.19°(Tele) / V: 33.54°(Wide)~1.25°(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 / 110°(-20°~90°)
IR Viewable Length	-	-	-	200m(656.17ft)	200m(656.17ft)
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (ICR)	Auto(ICR)/Colour/BW/Schedule	Auto(ICR)/Colour/BW/Schedule
Wide Dynamic Range	150dB	150dB	150dB	Extreme WDR (120dB)	Extreme WDR (120dB)
Digital Noise Reduction	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)
Analytics	Intelligent analytics, Audio detection Sound classification (w/ external MIC)	Intelligent analytics	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection Sound classification
Business Intelligence	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	-
Alarm I/O	-	-	1 / 1	-	-
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	-	Selectable (mic in/line in) / Line out	-	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	-	-
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	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, 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
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)	Normal : -40°C~+55° (-40°F ~ +131°F) Less than 95% RH(Non-condensing)
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP66, IK10(Camera body only), NEMA4X	IP66, IK10(Camera body only), NEMA4X
Power Consumption	PoE : Max 6.50W	PoE : Max 6.50W	PoE : Max 6W 12V DC : Max 5.5W	HPoE(Camera only): Max 42W	HPoE(Camera only): Max 42W
Dimensions (WxHxD) / Weight	98.9 x 52.0 x 100.0mm (3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø112.8 x 63.7mm (Ø4.44" x 2.51") 420g (0.93 lb)	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 625g (1.38 lb)	Ø184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)	Ø184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)
Additional Features	M12 Connector (XNV-6012M) Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	-	-



XNP-6550RH
2MP 55x IR PTZ Camera

X | PTZ PLUS

NEW



XNP-6400RW
2MP Network 40x IR PTZ - built-in wiper



XNP-6371RH
2MP 37x IR PTZ Camera



XNP-6320RH
2MP 32x IR PTZ Camera



XNP-6321H / XNP-6321
2M 32x Network PTZ Dome Camera

Imaging Device	1/2.8" 2MP CMOS	1/2.8" CMOS	1/1.9" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2.4M CMOS
Min. Illumination	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 (F1.5) B/W : 0Lux (IR LED on)	Colour : 0.05Lux (F1.6) B/W : 0Lux (IR LED On)	Colour : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)
Video Output	CVBS 1.0 Vp-p	-	CVBS 1.0 Vp-p	CVBS: 1.0 Vp-p	CVBS : 1.0 Vpp
Focal Length	4.75 ~ 261.4mm (55x) zoom	4.25~170mm(40x) zoom	6 ~ 222mm (37x) zoom	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (Optical 32x)
Angular Field of View	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 : 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)
Pan / Tilt / Rotate	360° Endless / 95° (-5° ~ 90°) / -	360° Endless / 110° (-20° ~ 90°)	360° Endless / 190° (-5° ~ 185°) / -	360° Endless / 95° (-5° ~ 90°) / -	360° Endless / 210° (-15° ~ 195°)
IR Viewable Length	500m (1,640.42ft)	200m(656.17ft)	350m (1,148.29ft)	200m (656.17ft)	-
Day & Night	Auto (ICR)	Auto(ICR)/Colour/BW/Schedule	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	Extreme WDR (150dB)	120dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNR	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, Shock detection	Intelligent analytics, Audio detection Sound classification	Intelligent analytics, Audio detection	Intelligent analytics, Audio detection, Sound classification, Shock detection	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis) Appear, Audio detection, Face detection, Motion detection, Sound classification
Business Intelligence	-	-	-	-	-
Alarm I/O	4 / 2	-	4 / 2	4 / 2	4 / 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	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	-	2MP / 60fps	2MP / 60fps	-
WiseStream	WiseStream II	WiseStream II	WiseStream	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 3 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDH C/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-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)	-50°C ~ +55°C (-122°F ~ +131°F)	HPoE : -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C 24VAC : -50°C ~ +55°C (-58°F ~ +131°F)	24V AC : -50°C ~ +55°C (-58°F ~ +131°F) / Less than 90% RH PoE+ : -35°C ~ +55°C (-31°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C (-22°F) (XNP-6321H) -10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH (XNP-6321)
Certification	IP66, IK10	IP66, IK10(Camera body only), NEMA4X	IP66, IK10	IP66, IK10	IP66, IK10 (XNP-6321H)/IK10
Power Consumption	HPoE : 60W 24VAC : Max 92W	HPoE(Camera only): Max 42W	24VAC : Max 90W	HPoE : Max 51W, typical 30W 24VAC : Max 83W, typical 30W	Max. 24W (Heater Off), Max. 65W (Heater on, 24V AC) (XNP-6321H) Max. 20W (XNP-6321)
Dimensions (WxHxD) / Weight	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1Kg (15.65 lb)	Ø184.9x318.8mm (7.28x12.55") 5.4Kg(11.90lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1Kg (15.65 lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 6.8Kg (14.99 lb)	Ø223.4 x 293.6mm (8.8" x 11.56") (XNP-6321H) Ø152.0 x 218.0mm (5.98" x 8.58") (XNP-6321)
Additional Features	Defog, Auto tracking	-	Defog, Auto tracking	Defog, Auto tracking	Defog



XNP-6320H/6320
2MP PTZ Camera



XNP-6320HS
2MP Stainless 32x PTZ Camera



XNP-6120H
2MP 12x PTZ Camera



XNP-6040H
2MP 4.3x PTZ Camera

Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2.16MP CMOS	1/2.8" 2.16MP CMOS
Min. Illumination	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, 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, Micro USB type B
Focal Length	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (32x) zoom	5.2 ~ 62.4mm (12x) zoom	2.8 ~ 12mm (4.3x) zoom
Angular Field of View	H : 61.8° (Wide) ~ 2.19°(Tele) / V : 36.2° (Wide) ~ 1.24°(Tele)	H : 61.8° (Wide) ~ 2.19° (Tele) / V : 36.2° (Wide) ~ 1.24° (Tele)	H : 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 / 210° (-15° ~ 195°) / -	360° Endless / 210° (-15° ~ 195°) / -	360° Endless / 190° (-5° ~ 185°) / -	0° ~ 355° / 0° ~ 90°
IR Viewable Length	-	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB
Digital Noise Reduction	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)
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics, Audio detection, Sound classification	Intelligent analytics, Audio detection, Sound classification
Business Intelligence	-	-	-	-
Alarm I/O	4 / 2	4 / 2	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	PoE+ : -35°C ~ +55°C (-31°F ~ +131°F) 24VAC : -50°C ~ +55°C (-58°F ~ +131°F) (XNP-6320H) -10°C ~ +55°C(-14°F ~ +131°F) (XNP-6320)	PoE+ : -35°C ~ +55°C (-31°F ~ +131°F) 24VAC : -50°C ~ +55°C (-58°F ~ +131°F) (XNP-6320H)	-30°C ~ +55°C (-22°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)
Certification	IP66, IK10 (XNP-6320H) IK10 (With SHP-3701H) (XNP-6320)	IP67, IP66, NEMA4X, IK10	IP66, IK10	IP66, IK10
Power Consumption	PoE+, 24VAC : Max 24W - Heater off 24VAC : Max 65W - Heater on (XNP-6320H) PoE+, 24VAC : Max 20W (XNP-6320)	24VAC : Max 65W	PoE, 12VDC : Max 12W	PoE : Max 9.6W 12VDC : Max 8.6W
Dimensions (WxHxD) / Weight	Ø220 x 293.6mm (Ø8.66" x 11.56") 3.3Kg (7.28 lb) (XNP-6320H) Ø152 x 218mm (Ø5.98" x 8.58") 5.3Kg (11.69 lb) 1.7Kg (3.75 lb) (XNP-6320)	Ø227 x 296mm (Ø8.94" x 11.65") 5.3kg (11.69 lb)	Ø168.0 x 161.5mm (Ø6.61" x 6.36") 1.9kg (4.19 lb)	Ø136.1 x 106.1mm (Ø5.36" x 4.18") 0.78 kg (1.72 lb)
Additional Features	Defog, Auto tracking	Defog, Auto tracking SUS316L	Defog, Auto tracking	Defog, Auto tracking

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

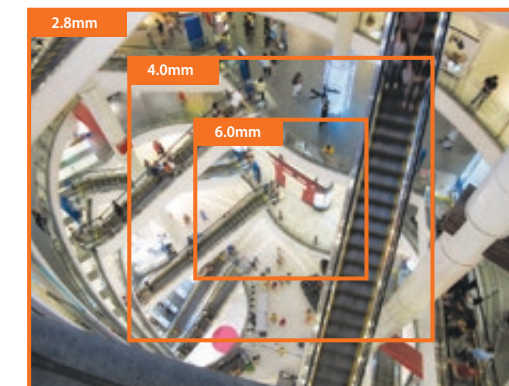


Various lens options

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.

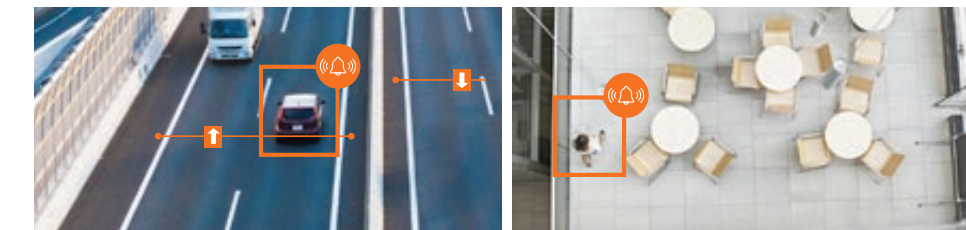


Defocus Detection

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.

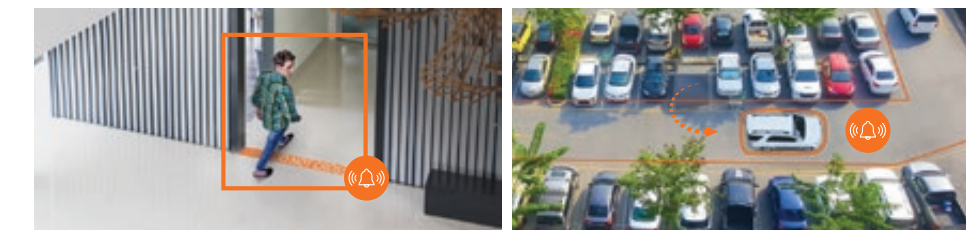


Directional Detection

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.



Q SERIES

ANALOG

PERIPHERAL

ACCESSORY

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.



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

Retail Insight



Retail Insight, a business intelligence solution optimized for franchise retail, is a software that helps us use Business Intelligence features such as people counting and heatmap of Wisenet cameras including Q mini cameras in a more convenient and effective way.



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

	 	 	 	 	 
	QND-8011/8021 5MP Dome Camera	QNV-8080R 5MP IR Vandal Dome Camera	QNV-8010R/8020R/8030R 5MP IR Vandal Dome Camera	QNE-8011R/8021R 5MP IR Flateye Camera	QNE-6080RV 2M Network IR Flateye Camera
Imaging Device	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.8" 5MP CMOS	1/2.9" 2.19M CMOS
Min. Illumination	Colour : 0.15Lux (F2.0) (QND-8011) Colour : 0.15Lux (F1.6)	Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F2.0) Colour : 0.15Lux (F1.6) (QNV-8020R) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F1.6) Colour : 0.15Lux (F2.0) (QNE-8011R) B/W : 0Lux (IR LED on)	Colour : 0.2Lux B/W : 0Lux (IR LED on)
Video Output	Micro HDMI	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	-
Focal Length	2.8mm fixed (QND-8011) 4mm fixed (QND-8021)	3.2 ~ 10mm (3.1x) motorized varifocal	2.8mm fixed (QNV-8010R) 4.0mm fixed (QNV-8020R) 6.0mm fixed (QNV-8030R)	2.8mm fixed (QNE-8011R) 4.0mm fixed (QNE-8021R)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)
Angular Field of View	H : 104.4° / V : 76.7° / D : 136.1°(QND-8011) H : 80.1° / V : 58.0° / D : 105.8° (QND-8021)	H : 100.3° (Wide) ~ 31.2° (Tele) / V : 72.3° (Wide) ~ 23.5° (Tele) / H : 133.1° (Wide) ~ 38.8 °(Tele)	H : 79.8° / V : 58.1° / D : 105.9°(QNV-8010R) H : 79.8° / V : 58.1° / D : 105.9° (QNV-8020R) H : 49.4° / V : 37.4° / D : 61.0° (QNV-8030R)	H : 104.4° / V : 76.7° / D : 136.1° (QNE-8011R) H : 80.1° / V : 58.0° / D : 105.8° (QNE-8021R)	H : 104.2°(Wide) ~ 31.2°(Tele) / V : 55.1°(Wide) ~ 17.5°(Tele) / D : 124.3°(Wide) ~ 35.8°(Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 75° / 0° ~ 360°	0° ~ 350° / 0° ~ 70° / 0° ~ 360°
IR Viewable Length	-	30m (98.42ft)	20m (65.62ft) (QNV-8010R) 25m (82.02ft) (QNV-8020R) 30m (98.42ft) (QNV-8030R)	20m (65.62ft)	30m (98.43ft)
Day & Night	Auto (Electrical)	Auto (ICR)	Auto (ICR)	Auto (ICR)	True (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	People counting	-	-	-	-
Alarm I/O	-	1 / 1	1 / 1	-	1 / 1
Audio I/O	-	-	-	-	Uni-Directional
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	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC, NAS
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI
Operating Temperature	-10°C ~ +40°C (+14°F ~ +104°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	IP42, IK08	IP66, IK10	IP66, IK10	IP67, IK10	IP66, IK10
Power Consumption	PoE : Max 5W, typical 4W	PoE : Max 8.9W, typical 6.6W	PoE : Max 7.2W, typical 5.4W, PoE : Max 7.5W, typical 5.8W (QNV-8010R)	PoE : Max 7.4W, typical 5.5W	Max. 7.6W (12V DC) Max. 8.3W (PoE)
Dimensions (WxHxD) / Weight	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364 lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 700g (1.543 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124 lb)	Ø125 x 87.35mm (Ø4.92" x 3.44") 645g (1.422 lb)	Ø144.9 x 135.5mm (Ø5.70" x 5.33") 1.3Kg (2.87lb)
Additional Features	Super compact design, Hallway View	Hallway View	Hallway View	Hallway View	Lens distortion correction, Hallway View

	 	 
	QNF-9010 12MP Network Fisheye Camera	QNF-8010 6MP Fisheye Camera
Imaging Device	1/2.3" 12MP CMOS	1/1.8" 6MP CMOS
Min. Illumination	Colour: 0.39 Lux (F2.2, 1/30sec)	Colour: 0.2 Lux (F2.5, 1/30sec)
Video Output	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p
Focal Length	1.08mm fixed focal	1.14mm fixed focal
Angular Field of View	H: 187° / V: 187° / D: 187°	H: 187° / V: 187° / D: 187°
Pan / Tilt / Rotate	-	-
IR Viewable Length	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV
Digital Image Stabilization	-	-
Analytics	Defocus detection, Motion detection, Tampering	Defocus detection, Motion detection, Tampering
Business Intelligence	People counting, Heatmap	People counting, Heatmap
Alarm I/O	-	-
Audio I/O	-	-
Video Compression	H.265/H.264: Main/High, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	12MP / 30fps	6MP / 30fps
WiseStream	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	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
Operating Temperature	-10°C ~ +40°C(+14°F ~ +104°F) / Less than 90% RH	-10°C ~ +55°C(+14°F ~ +131°F) / Less than 90% RH
Certification	IP42	IP42
Power Consumption	PoE: Max 7.7W, typical 6.4W	PoE: Max 6.4W, typical 4.6W
Dimensions (WxHxD) / Weight	Ø99x49mm(Ø3.9x1.93") 370g	Ø99x49mm(Ø3.9x1.93") 320g(0.705 lb)
Additional Features	-	-



QNB-6002
2MP Box Camera



QNO-6082R
2MP IR Bullet Camera



QNO-6012R/6022R/6032R
2MP IR Bullet Camera



QND-6082R
2MP IR Dome Camera

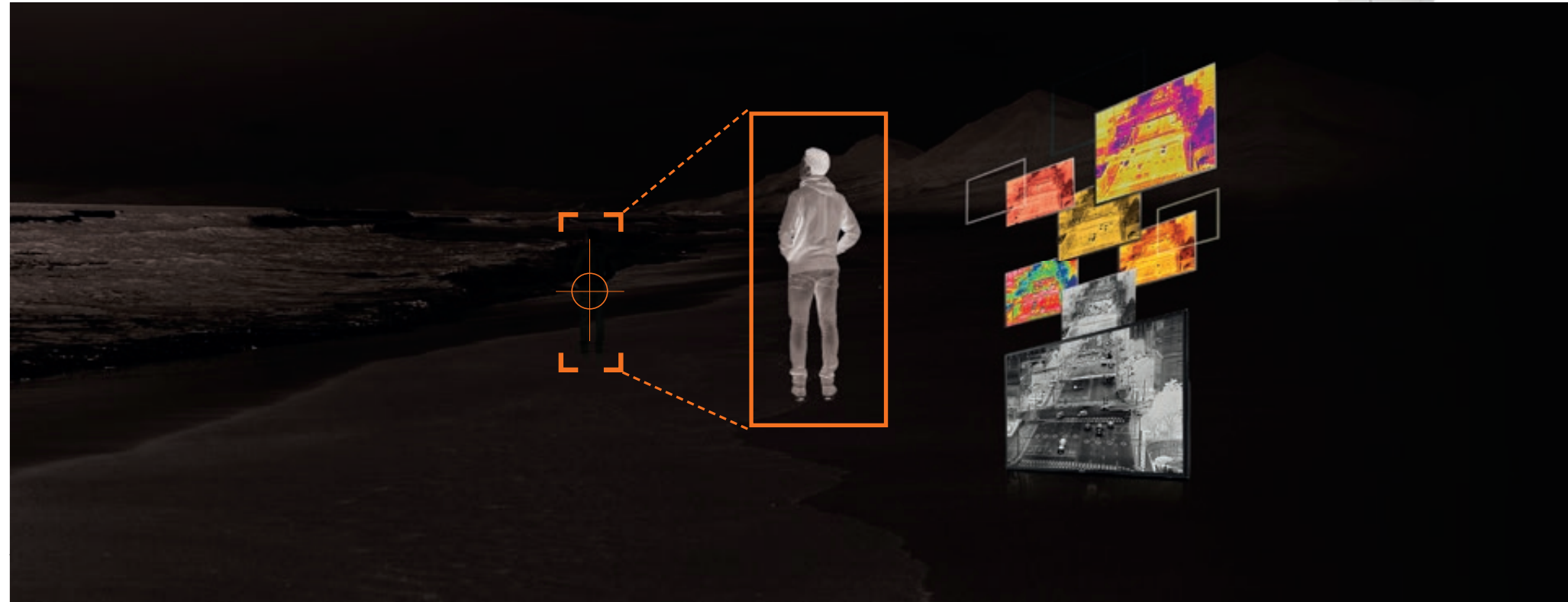
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour : 0.01Lux (F1.2) B/W : 0Lux (IR LED on)	Colour : 0.095Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.1Lux (F2.0) Colour : 0.1Lux (F1.6) (QNO-6022R) B/W : 0Lux (IR LED on)	Colour : 0.095Lux (F1.6) B/W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

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

				
	QNV-6023R 2MP Mobile IR Flat Camera	QNV-6024RM 2MP Mobile IR Flat Camera	QNP-6230H/6230 2MP 23x PTZ Camera	QNP-6230RH 2MP 23x Network IR PTZ Dome Camera
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2.4MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	Colour: 0.03Lux(F2.0, 1/30sec) BW: 0Lux(IR LED on)	Colour: 0.03Lux(F2.0, 1/30sec) BW: 0Lux(IR LED on)	Colour : 0.2Lux (F1.6) B/W : 0.01Lux (F1.6)	Colour : 0.05Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)
Video Output	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS: 1.0 Vp-p
Focal Length	3.6mm fixed focal	3.6mm fixed focal	4.44 ~ 102.2mm (Optical 23x)	4.44 ~ 102.2mm (23x) zoom
Angular Field of View	H: 94.8° / V: 49.3° / D: 114.3°	H: 94.8° / V: 49.3° / D: 114.3°	H : 61.8° (Wide) ~ 3.08° (Tele) / V : 36.2° (Wide) ~ 1.73° (Tele)	H: 61.8° (Wide) ~ 3.08° (Tele) / V : 36.2° (Wide) ~ 1.73° (Tele)
Pan / Tilt / Rotate	±5° / 0° ~ 67° / ±90°	±5° / 0° ~ 67° / ±90°	360° Endless / 210° (-15° ~ 195°)	360° Endless / 95° (-5° ~ 90°)
IR Viewable Length	15m (49.21ft)	15m (49.21ft)	-	100m (328.08ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNRV	SSNRV
Digital Image Stabilization	-	-	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Intelligent analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line
Business Intelligence	-	-	-	-
Alarm I/O	-	-	4 / 2	4 / 2
Audio I/O	Line-in	Selectable (mic in/line in/built-in mic) Line out, Max.output level: 1Vrms	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265/H.264, MJPEG	H.265/H.264, MJPEG	H.265, H.264, MJPEG	H.265/H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC 1slot 128GB	Micro SD/SDHC/SDXC 1slot 128GB	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Wisenet open platform	ONVIF profile S/G, SUNAPI	ONVIF Profile S/G/T, SUNAPI (HTTP API), Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	24VAC : -50°C ~ +55°C (-58°F ~ +131°F) / Less than 90% RH HPoE : -40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -35°C"
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10 (QNP-6320H) IK10 (With SHP-3701H) (QNP-6320)	IP66, IK10
Power Consumption	PoE: Max 6.70W, typical 5.00W	PoE: Max 6.70W, typical 5.00W	PoE+, 24VAC : Max. 24.0W - Heater Off, 24VAC : Max. 65.0W - Heater On (QNP-6230H) PoE+, 24VAC : Max. 20.0W (QNP-6230)	24VAC: Max. 83W (typical : 30W) HPoE : Max. 51W (typical : 30W)
Dimensions (WxHxD) / Weight	Ø98.9 x 52.0 x 100.0mm (Ø3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø98.9 x 52.0 x 100.0mm (Ø3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø223.4 x 293.6mm (Ø8.8" x 11.56") 1.7Kg (3.75 lb) (QNP-6230H) Ø152.0 x 218.0mm (Ø5.98" x 8.58") 1.7Kg (3.75 lb) (QNP-6230)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 6.8Kg (14.99 lb)
Additional Features	-	-	Defog	-

Specialized Cameras for Challenging Conditions

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



Explosion-proof Cameras

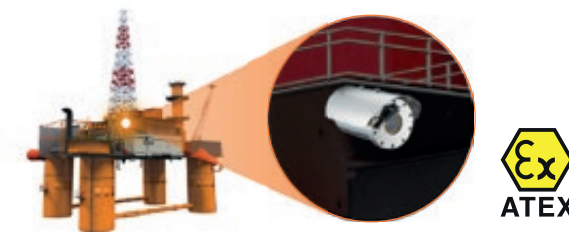
Explosion Proof Cameras for Hazardous Environments

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



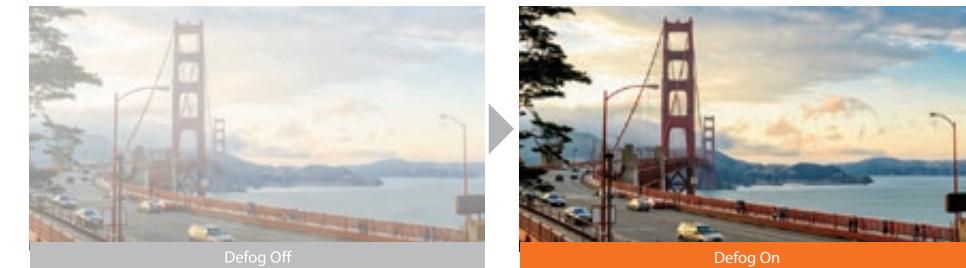
Stainless Steel 316L Enclosure to Prevent Explosions

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



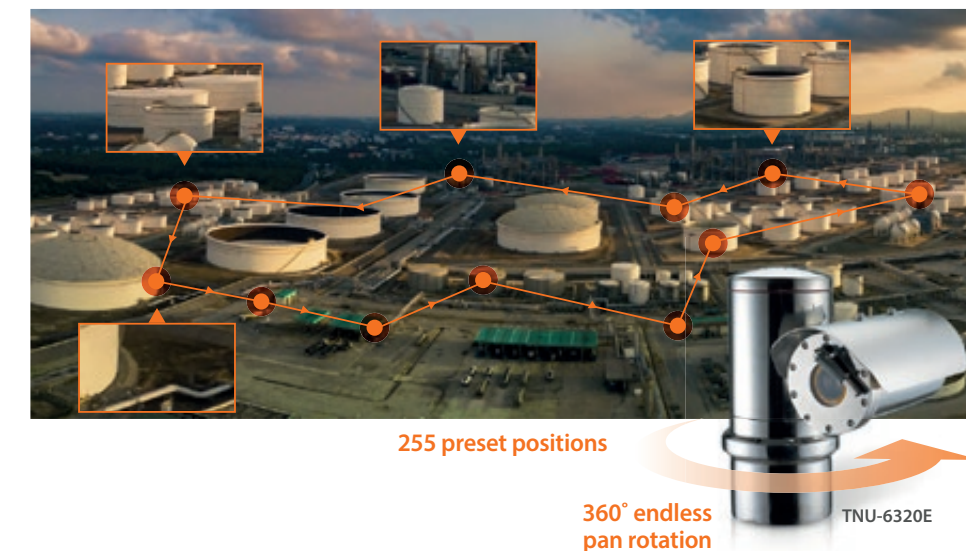
Defog technology to improve image clarity

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



360° endless pan rotation and 255 preset mode

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



VGA and QVGA Thermal Cameras

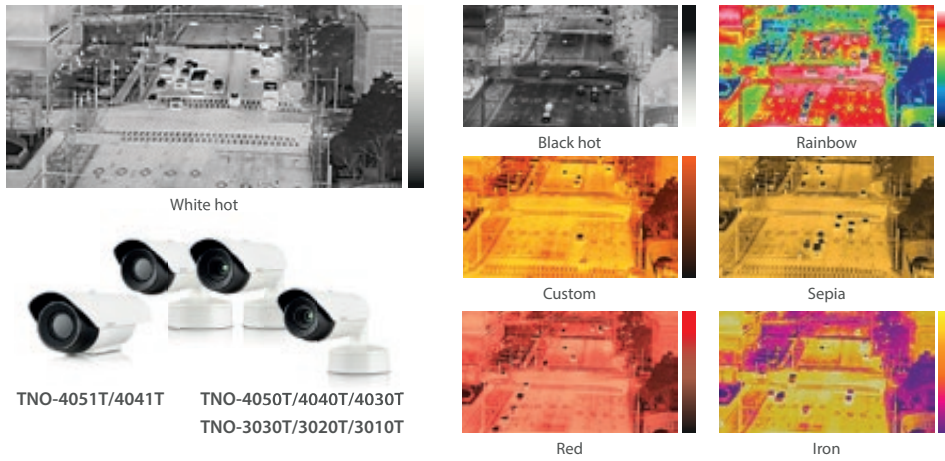
See the unseen with thermal cameras

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

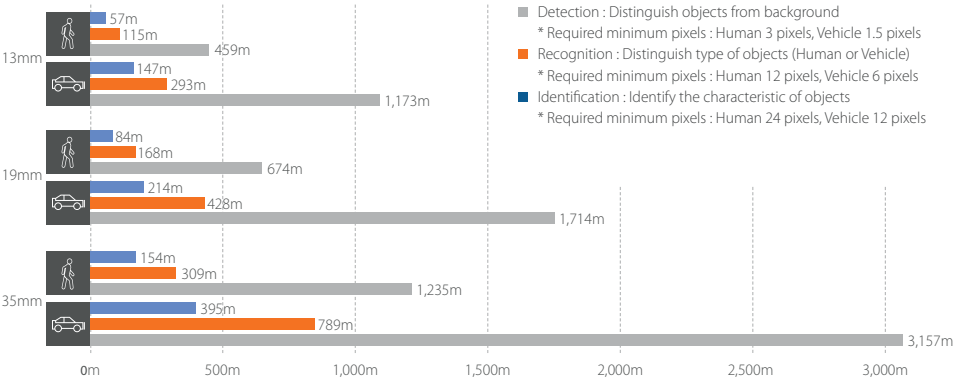
Wisenet thermal cameras provide seven different types of colour palette for users to select the best image in various situations. Each colour palette has a specific set of colours which change according to the temperature range of the scene.



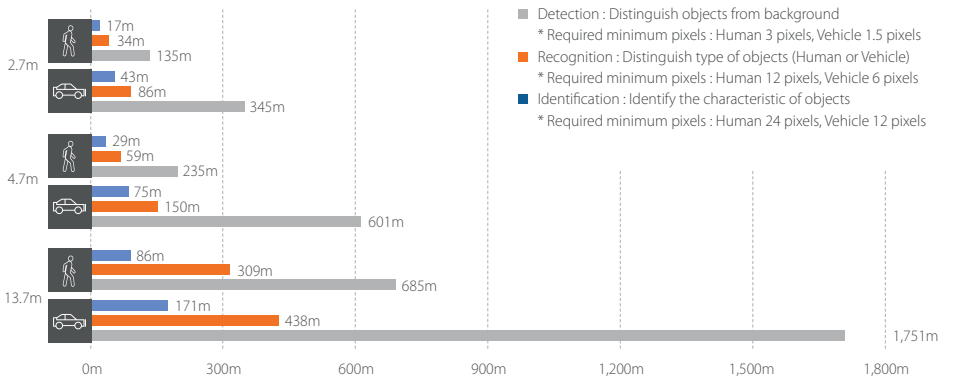
Long detection range up to 3,157m

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.

TNO-4050T/4040T/4030T



TNO-3030T/3020T/3010T



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

Secure a wide variety of applications

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

VGA Thermal Radiometric Camera



Temperature measurement to monitor incidents

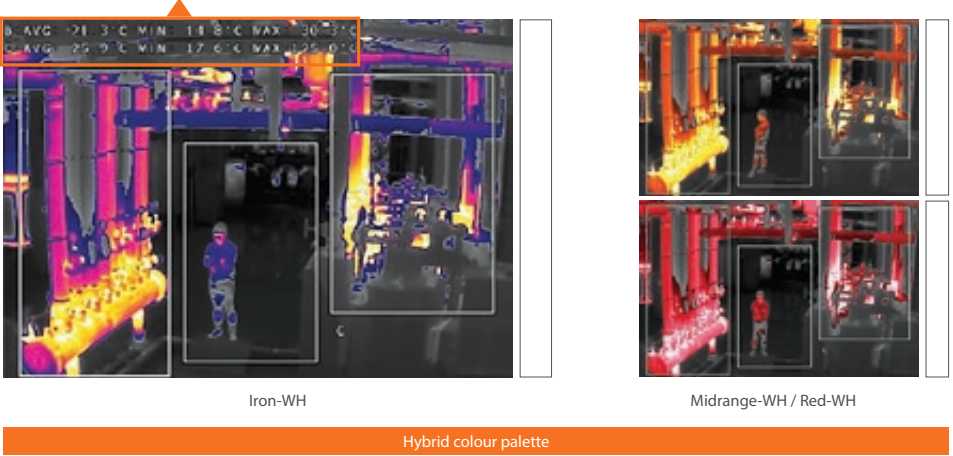
The Wisenet thermal radiometric camera has the added feature of being able to detect the temperature range of -20°C to +130°C. Alarms are generated and sent to users whenever the temperature of three areas in the monitoring screen is above or below a defined value or the temperature increases or decreases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





TNO-6320E
2MP Explosion-proof Camera

Imaging Device	Uncooled micro bolometer (320x240)	43.3mm Full-frame CMOS	1/2.8" CMOS	1/2.8" 3.2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	Colour : 0.015Lux(F1.4) BW : 0.0015Lux(F1.4)	Colour: 0.1 lux (F2.3, 1/30sec) B/W: 0.02 lux (F2.3, 1/30sec)	Colour : 0.3Lux (F2.0) B/W : 0Lux (IR LED on)	Colour : 015Lux (F1.6) B/W : 0.015Lux (F1.6)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B,	HDMI (1080p)	CVBS: 1.0 Vp-p, Micro USB Type B,	CVBS 1.0 Vp-p	-
Focal Length	4.7mm fixed	-	2.3mm fixed	2.8mm fixed	4.44 ~ 142.6mm (Optical 32x)
Angular Field of View	H: 50.0°, V: 36.4°, D: 65.3°	Canon 24mm, H: 57.4° Canon 35mm, H: 42.6° Canon 50mm, H: 30.9° Canon 85mm, H: 19.1° Canon 100mm, H: 16.0° Canon 70-200mm, H: 22.8° ~ 8.0°	H: 131°, V: 93.4°, D: 174°	H : 102° / V : 75° / D : 129°	H : 62.8" (Wide) ~ 2.23" (Tele) / V : 36.8" (Wide) ~ 1.26" (Tele)
Pan / Tilt / Rotate	-	-	-7~+7°	0° / ±15° / 0°	-
IR Viewable Length	-	-	-	10m (32.8ft) with 940nm IR LED	-
Day & Night	-	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	-	-	120dB	120dB	120dB
Digital Noise Reduction	-	SSNRV	SSNR	SSNRV	SSNRIII
Digital Image Stabilization	Support	-	Support	Support	Support
Analytics	Estimated Body Temperature: Temperature detection, Blackbody error Normal mode : Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection, Temperature detection	Deep Learning based analytics, Intelligent analytics, Audio detection, Sound classification	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 2	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.264, MJPEG
Resolution / Max. Frame Rate	-	8K/15fps, 24MP/20fps, 15MP/30fps, 4K/60fps	-	3MP / 30fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	-
Streaming	Up to 6 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 1slot (128GB)	Micro SD/SDHC/SDXC	-
Application Programming Interface	-	ONVIF Profile S/G/T, SUNAPI	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S, SUNAPI, Wisenet open platform
Operating Temperature	EBT mode: +10°C~+35°C (+50°F~+95°F) / Less than 95% RH Normal mode: -10°C~+55°C(+14°F~+131°F) / Less than 95% RH	0°C ~ +45°C (32°F ~ +122°F)	-10°C ~ +55°C(+14°F ~ +131°F) Less than 95% RH	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)
Certification	-	-	IP66, IP6K9K, IK10	IP66, IP6K9K, IK10+	IP67, IK10, CE2460, EX II 2 GD, Ex d IIC T6 Gb IP67, Ex tb IIIC T85°C Db
Power Consumption	PoE+: Max. 17.0W 12VDC: Max. 14.5W	HPoE : Max 40W 12VDC : Max 35W	PoE: Max 6.49W	PoE : Max 12W 12VDC : Max 11W	24VAC : Max 28W
Dimensions (WxHxD) / Weight	135(W)x75(H)x188.5(D)mm (5.31x2.95x7.42"), 1.7kg(3.77lb)	118.5 x 120 x 180mm, 2.2kg (4.85lb)	143x122x73.7mm(5.6x4.8x2.9"), 815g(1.79lb)	236 x 236 x 126.5mm (9.29" x 9.29" x 4.98"), 2.2kg (4.85lb)	Ø162 x 244mm (Ø6.38" x 9.61"), 7Kg(15.43 lb)
Additional Features		8K, Canon EF mount	-	Anti ligature design, Invisible IR LED, Hallway View	Stainless (SUS316L) housing, Built in wiper



TNU-6320E
2MP Explosion-proof PTZ Camera



TNU-6320
2MP Positioning Camera



TNU-4041T / 4051T
VGA Thermal Positioning Camera



TNO-4041T/4051T
VGA Thermal Bullet Camera



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

Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer
Min. Illumination	Colour : 015Lux (F1.6) B/W : 0.015Lux (F1.6)	Colour : 015Lux (F1.6) B/W : 0.015Lux (F1.6)	-	-	-
Video Output	-	-	CVBS : 1.0Vp-p	CVBS : 1.0Vp-p	CVBS : 1.0Vp-p, Micro USB Type B
Focal Length	4.44 ~ 142.6mm (Optical 32x)	4.44 ~ 142.6mm (Optical 32x)	19mm / 35mm fixed	19mm fixed (TNO-4041T) 35mm fixed (TNO-4051T)	13mm fixed (TNO-4030T) 19mm fixed (TNO-4040T) 35mm fixed (TNO-4050T)
Angular Field of View	H : 62.8° (Wide) ~ 2.23° (Tele) / V : 36.8° (Wide) ~ 1.26° (Tele)	H : 62.8° (Wide) ~ 2.23° (Tele) / V : 36.8° (Wide) ~ 1.26° (Tele)	H : 32° / V : 24.3° / D : 39.2° H : 17.2° / V : 13° / D : 22°	H : 32° / V : 24.3° / D : 39.2° (TNO-4041T) H : 17.2° / V : 13° / D : 22° (TNO-4051T)	H : 48.6° / V : 36.4° / D : 61.6° (TNO-4030T) H : 32° / V : 24.3° / D : 39.2° (TNO-4040T) H : 17.2° / V : 13° / D : 22° (TNO-4050T)
Pan / Tilt / Rotate	360° Endless / 180° (-90° ~ 90°) / -	360° Endless / 180° (-90° ~ 90°) / -	360° Endless / -90° ~ 40°	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	-	-	-
Wide Dynamic Range	120dB	120dB	-	-	-
Digital Noise Reduction	SSNRIII	SSNRIII	-	-	-
Digital Image Stabilization	Support	Support	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 2	1 / 2
Audio I/O	-	-	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.264, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps
WiseStream	-	-	WiseStream II	WiseStream II	WiseStream II
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	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S, SUNAPI, Wisenet open platform	ONVIF profile S, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +60°C (-22°F ~ +140°F)	-40°C ~ +55°C (-40°F ~ +131°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)
Certification	IP67, IK10, CE2460, EX II 2 GD, Ex d IIC T6 Gb IP67, Ex tb IIIC T80°C Db	IP66	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10 (TNO-4041T)	IP66, NEMA 4X, IK10 (TNO-4030T/4040T)
Power Consumption	24VAC : Max 49W	24VAC : Max 100W - Heater On Max 25W - Heater Off	24VAC : Max 84W - Heater On Max 25W - Heater Off	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W
Dimensions (WxHxD) / Weight	384.0 x 402.0 x 250.0mm (15.12" x 15.83" x 9.84") 35Kg (77.16 lb)	219.0 x 460.0 x 528.0mm (8.62" x 18.11" x 20.79") 14kg (30.86 lb)	219 x 528 x 335mm (8.62" x 20.79" x 13.19") 11.7 kg (25.79lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 2,501g (5.51 lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3,175g (7.0 lb)
Additional Features	Stainless (SUS316L) housing, Built in wiper	Defog, Built in wiper	Various colour palettes	Various colour palettes, PT type	Various colour palettes



TNO-4041TR
VGA Radiometric Thermal Bullet Camera



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



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



TNB-6030
Public View Monitoring Camera

Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled micro bolometer	1/2.8" 2M CMOS
Min. Illumination	-	-	-	Colour : 0.06 Lux (1/30sec, F2.5)
Video Output	CVBS : 1.0Vp-p	CVBS : 1.0Vp-p, Micro USB Type B	CVBS : 1.0Vp-p, Micro USB Type B	Micro HDMI (Max. 1920 x 1080 60fps)
Focal Length	19mm fixed	13mm fixed (TNO-4030TR) 19mm fixed (TNO-4040TR)	2.7mm fixed (TNO-3010T) 4.7mm fixed (TNO-3020T) 13.7mm fixed (TNO-3030T)	4.6mm
Angular Field of View	H : 32° / V : 24.3° / D : 39.2°	H : 48.6° / V : 36.4° / D : 61.6° (TNO-4030TR) H : 32° / V : 24.3° / D : 39.2° (TNO-4040TR)	H : 92° / V : 65.5° / D : 125.7° (TNO-3010T) H : 50° / V : 36.4° / D : 65.3° (TNO-3020T) H : 16° / V : 12° / D : 20° (TNO-3030T)	H : 73.8° / V : 39.6° / D : 86.8°
Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	-	-	-	-
Day & Night	-	-	-	Auto (Electrical) / Colour / B/W
Wide Dynamic Range	-	-	-	150dB
Digital Noise Reduction	-	-	-	SSNRV (2D+3D noise filter) (Off / On)
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Off / On
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis) Appear, Face detection, Motion detection, Digital auto tracking
Business Intelligence	-	-	-	-
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 / 30fps	640 x 480 / 30fps	320 x 240 / 30fps	640 x 480 / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G, SUNAPI (HTTP API), Open Platform
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	+14°F ~ +122°F (-10°C ~ +50°C) / Less than 90% RH
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IPv4, IPv6
Power Consumption	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 8.7W 12VDC : Max 7.8W 24VAC : Max 9.2W	Max. 6W (12V DC), Max. 7W (PoE)
Dimensions (WxHxD) / Weight	Ø101.97 x 309mm (Ø4.01" x 12.17") 2,452g (5.41lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3,124g (6.89lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2512g (5.538lb)	Main unit : 9.45" x 1.81" x 0.98" (240 x 46 x 25mm) Lens : 1.18" x 1.77" x 0.8" (30 x 45 x 20.4mm) 0.54 lb (245g)
Additional Features	Various colour palettes Spot temperature reading, PT type	Various colour palettes Spot temperature reading	Various colour palettes	Motion detection, Video & audio analytics, Network disconnect

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-4011
64CH 12MP NVR



XRN-3010A
64CH 12MP NVR

Os	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	300Mbps
Max # of Cameras	64	64
Internal Storage	Up to 12 SATA (Max. 96TB)	Up to 8 SATA (Max. 64TB)
External Storage	iSCSI	1 e-SATA
RAID	RAID 5/6	-
Hot Swap		
Network Viewer Software	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	- N+1 failover supported - ARB redundancy supported - WiseStream supported - Defocus event trigger - Hot Swap	- N+1 failover supported - ARB redundancy supported - WiseStream supported - Defocus event trigger - Easy configuration (Setup Wizard, P2P (QR Code))



XRN-2011A
32CH 12MP NVR



XRN-2010A
32CH 12MP NVR



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

Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	256Mbps, 100Mbps (RAID 5 mode)	256Mbps	180Mbps
Max # of Cameras	32	32	16
Internal Storage	Up to 8 SATA (Hot swap) Max. 48TB (Non RAID), Max.36TB (RAID 5)	Up to 8 SATA (Max. 48TB) (XRN-2010)	Up to 4 SATA (Max. 24TB) (XRN-1610SA) Up to 8 SATA (Max. 48TB) (XRN-1610A)
External Storage	iSCSI	iSCSI, 1 e-SATA	iSCSI, 1 e-SATA
RAID	RAID 5	-	-
Hot Swap	Yes	-	-
Network Viewer Software	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	- N+1 failover supported - ARB redundancy supported - WiseStream supported - Easy configuration (Setup Wizard, P2P (QR Code))	- N+1 failover supported - ARB redundancy supported - WiseStream supported - Easy configuration (Setup Wizard, P2P (QR Code))	- Plug & play by 16 PoE / PoE+ Ports (XRN-1610S) - WiseStream supported - Defocus event trigger - Easy configuration (Setup Wizard, P2P (QR Code)) (XRN-1610SA/1610A)



XRN-810S
8CH 8MP NVR



XRN-410S
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, WiseStream	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	-	-	-	SSM, WebViewer, SmartViewer, Wisenet Mobile
RAID	-	-	-	HDMI(8MP), VGA
Network Viewer Software	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	
Local Monitor	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA	HDMI(8MP), VGA	
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	- Plug & play by 8 PoE / PoE+ Ports - ARB supported - Easy configuration (Setup Wizard, P2P (QR Code)) - Event push to smart phone - Transmission bandwidth 128Mbps - Defocus event trigger	- 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-420S
4CH 8MP NVR



QRN-1610S
16CH 8MP NVR



QRN-810S
8CH 8MP NVR



QRN-410S
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, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	40Mbps	128Mbps	80Mbps (QRN-810S)	40Mbps
Max # of Cameras	4	16	8	4
Internal Storage	Up to 1 SATA (Max. 6TB)	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)
Network Viewer Software	SSM, WebViewer, SmartViewer, Wisenet Mobile	-	-	-
Local Monitor	HDMI(8MP), VGA	-	-	-
Network Viewer Software		Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile	Wisenet WAVE, SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor		HDMI (Up to 4K), VGA	HDMI (Up to 4K)	HDMI (Up to 4K)
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	- 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	- Plug & play by 16 PoE ports - ARB supported - Easy Configuration (Setup Wizard, P2P (QR Code)) - Event push to smart phone - Transmission bandwidth 128Mbps - Defocus event trigger	- Plug & play by 8 PoE ports - ARB supported - Easy Configuration (Setup Wizard, P2P (QR Code)) - Event push to smart phone - Transmission bandwidth 80Mbps - Defocus event trigger	- Plug & play by 4 PoE ports - ARB supported - Easy Configuration (Setup Wizard, P2P (QR Code)) - Event push to smart phone - Transmission bandwidth 50Mbps - Defocus event trigger

Encoder



SPE-1610A
16CH Encoder



SPE-410A
4CH Encoder



SPE-110A
1CH Encoder

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

Decoder



SPD-1660R
16 Monitor Decoder



SPD-260B
Monitor Decoder Board for SPD-1660R



SPD-151
48CH Decoder

Video Out	HDMI (16ea), VGA (16ea)	HDMI (2ea), VGA (2ea)	HDMI, VGA, BNC
Resolution	HDMI up to 4K, VGA up to 1080p	HDMI up to 4K, VGA up to 1080p	HDMI up to 4K, VGA up to 1080p
Display	1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V (Up to 20 layouts and sequence)	1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V (Up to 20 layouts and sequence)	(HDMI) 1 / 4 / 9 / 16 / 25 / 36 (32Ch Only) (VGA) 1 / 4 / 9 / 16 (BNC) 1 Tile merge support
Power	100 ~ 240V AC	-	12V DC, PoE
Compatibility	-	-	SPE-1610A
Additional Features	Monitor merge - 1 x 2, 2 x 1, 2 x 2, 2 x 3, 3 x 2, 2 x 4, 2 x 5, 4 x 2, 3 x 3, 3 x 4, 4 x 3, 4 x 4, 3 x 5, 5 x 3, 5 x 2 SSM, WebViewer supported	Board of SPD-1660R	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 4.2 Open video platform

Intuitive and easy to use

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

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

SUNAPI 2.0 INTEGRATION

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

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

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



Hanwha Techwin specific features

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

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

An operating system to suit your needs.

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



Cloud

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



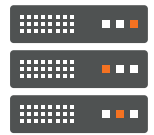
Desktop

A rich media player designed to view and manage a single Wisenet WAVE system 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			

ANALOG

HD+ series

Camera

						
	HCB-7000A QHD Box Camera	HCO-7070RA QHD IR Bullet Camera	HCO-7010RA/7020RA/7030RA QHD IR Bullet Camera	HCD-7070RA QHD IR Dome Camera	HCD-7010RA/7020RA/7030RA QHD IR Dome Camera	HCV-7070RA QHD IR Vandal Dome Camera
Imaging Device	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS	1/3" 4MP CMOS
Resolution	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440
Min. Illumination	Colour : 0.16Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCO-7010R) 0.27Lux (F2.0) (HCO-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCD-7010R) 0.27Lux (F2.0) (HCD-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	-	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCO-7010R) 4.0mm fixed (HCO-7020R) 6.0mm fixed (HCO-7030R)	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCD-7010R) 4.0mm fixed (HCD-7020R) 6.0mm fixed (HCD-7030R)	3.2 ~ 10mm (3.1x) varifocal
Angular Field of View	-	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCO-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCO-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCO-7030R)	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCD-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCD-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCD-7030R)	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)
Pan / Tilt / Rotate	-	-	-	0° ~ 350° / 0° ~ 63° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)	20m (65.62ft) (HCD-7010R) 25m (82.02ft) (HCD-7020R) 30m (98.43ft) (HCD-7030R)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR
Motion detection	Support	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones
Alarm I/O	MD Output 1	MD Output 1	-	MD Output 1	-	MD Output 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron) RS-485 : Samsung T, Pelco D/P	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Certification	-	IP66, IK10	IP66, IK10	-	-	IP66, IK10
Power Consumption	12VDC & 24VAC : Max 3.6W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5.0W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5.0W	12VDC & 24VAC : Max 5.8W
Dimensions (WxHxD) / Weight	68.4 x 59.6 x 92.7mm (2.69" x 2.35" x 3.65") 186g (0.41 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02 lb)	Ø70.0 x 246.0 mm (Ø2.76" x 9.69") (Without sunshield) 670g (1.48 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71 lb)	Ø110.1 x 86.1mm (Ø4.33" x 3.39") 240g (0.53 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 715g (1.58 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)

HD+ series

						
	HCV-7010RA/7020RA/7030RA QHD IR Vandal Dome Camera	HCB-6001 1080p HD Box Camera	HCB-6000 1080p HD Box Camera	HCZ-6321 2M 32x AHD Zoom Camera	HCO-6080R 1080p HD IR Bullet Camera	HCO-6080 1080p Analog HD Bullet Camera
Imaging Device	1/3" 4MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2.38M CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Resolution	2560 x 1440	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Colour : 0.26Lux (F1.8) (HCV-7010R) 0.27Lux (F2.0) (HCV-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.2 Lux (1/30sec, F1.6) B/W : 0.01 Lux (1/30sec, F1.6)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	2.8mm fixed (HCV-7010R) 4.0mm fixed (HCV-7020R) 6.0mm fixed (HCV-7030R)	-	-	4.44~142.6mm(32x) zoom	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 107.48° / V : 59.67° / D : 122.01° (HCV-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCV-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCV-7030R)	-	-	H: 62.8°(Wide)~2.23°(Tele) / V: 36.80°(Wide)~1.26°(Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	-	-	-	-	-
IR Viewable Length	20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	-	-	-	30m (98.43ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	WDR (120dB)	WDR (120dB)	BLC, HLC, WDR, SSSDR	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	2D DNR	SSNRIV	SSNRIV	SSNRIII	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	4 Zones	8 Zones	12 Zones	8 Zones	8 Zones
Alarm I/O	-	0 / 1, External D/N 1	0 / 1, External D/N 1	Output 1ea	MD Output 1	MD Output 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), RS-485 : Samsung T/E, Pelco D/P, Panasonic, Bosch, Honeywell, Vicon, GE, AD	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485 : Samsung T, Pelco D/P, Panasonic, Bosch, Honeywell, Vicon, GE, AD	ACP(AHD Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Certification	IP66, IK10	-	-	-	IP66, IK10	IP66, IK10
Power Consumption	12VDC : Max 5.0W	12VDC & 24VAC : Max 6W	12VDC & 24VAC : Max 3.5W	12VDC : Max 6W	12VDC & 24VAC : Max 6.0W	12VDC & 24VAC : Max 6.0W
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.12 lb)	73.1x 67.2 x 123.9mm (2.88" x 2.65" x 4.88") 287g (0.63 lb)	68.4 x 59.6 x 92.7mm (Ø4.74" x 3.61") 186g (0.41 lb)	71.8 x 63.9 x 137.25mm (2.83" x 2.35" x 5.40") 451g(0.99 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 948g (2.09 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 948g (2.09 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video transmsission up to 500m (5C2V Coaxial Cable)	Video transmsission up to 500m (5C2V Coaxial Cable)	500m(5C2V Coaxial Cable)	Video transmsission up to 500m (5C2V Coaxial Cable)	Video transmsission up to 500m (5C2V Coaxial Cable)

ANALOG

HD+ series



HCO-6070R
1080p HD IR Bullet Camera



HCO-6020R
1080p HD IR Bullet Camera



HCD-6080R
1080p HD IR Dome Camera



HCD-6070R
1080p HD IR Dome Camera



HCD-6020R
1080p HD IR Dome Camera

Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	3.2 ~ 10mm (3.1x) varifocal	4mm fixed (F1.6)	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) varifocal	4mm fixed (F1.6)
Angular Field of View	H : 110.2°(Wide) ~ 32°(Tele) / V : 55.4°(Wide) ~ 18°(Tele) / D : 128.4°(Wide) ~ 36.6°(Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 110.2° (Wide) ~ 32° (Tele) / V : 55.4° (Wide) ~ 18° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°
Pan / Tilt / Rotate	-		0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	-
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	8 Zones	8 Zones
Alarm I/O	MD Output 1	-	MD Output 1	MD Output 1	-
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) *Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) *Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66, IK10	IP66	-	-	-
Power Consumption	12VDC & 24VAC : Max 6.0W	12VDC : Max 4.2W	12VDC & 24VAC : Max 6.0W (HCD-6080R)	12VDC & 24VAC : Max 4.2W (HCD-6070R)	12VDC : Max 4.2W
Dimensions (WxHxD) / Weight	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02 lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.50") (Without sunshield) 285g (0.62 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 330g (0.73lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71lb)	Ø110 x 86mm (Ø4.33" x 3.39") 320g (0.71 lb)
Additional Features	Video 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)

HD+ series



HCD-6010
1080p HD Dome Camera



HCV-6070R
1080p HD IR Vandal Dome Camera



HCV-6080R
1080p HD IR Vandal Dome Camera



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



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

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

WISeNET Pentabrid DVR



Making the transfer from Analogue to IP simple

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

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

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



ANALOG

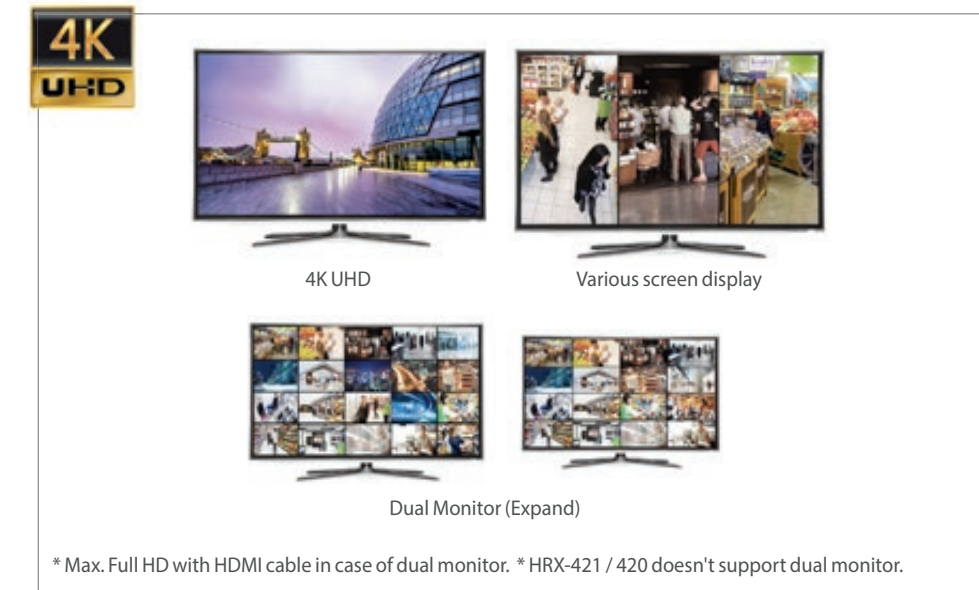
Combining Analogue and IP

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.



ANALOG

HD+ series

DVR

							
		HRX-1621 16CH 8MP Pentabrid Recorder	HRX-1620 16CH 8MP Pentabrid Recorder	HRX-821 8CH 8MP Pentabrid Recorder	HRX-820 8CH 8MP Pentabrid Recorder	HRX-421 4CH 8MP Pentabrid Recorder	HRX-420 4CH 8MP Pentabrid Recorder
Video Inputs Signal		Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera
Video Inputs Channel		Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 8CH, N/W Camera 2CH (up to 10CH)	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 4CH, N/W Camera 2CH (up to 6CH)	Analog 4CH, N/W Camera 2CH (up to 6CH)
Live (NTSC / PAL)		480fps / 400fps	480fps / 400fps	240fps / 200fps	240fps / 200fps	120fps / 100fps	120fps / 100fps
Recording Compression		H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Max. Recording		8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8fps, 5MP 12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH
Internal Storage		Up to 8 SATA HDDs	Up to 2 SATA HDDs	Up to 4 SATA HDDs	Up to 2 SATA HDDs	Up to 2 SATA HDDs	Up to 1 SATA HDDs
Audio I/O		16 / 1	4 / 1	8 / 1	4 / 1	4 / 1	1 / 1
Alarm I/O		16 / 4	16 / 4	8 / 4	8 / 4	4 / 2	4 / 1
Monitors	HDMI, VGA	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA	1 HDMI, 1 VGA
	Spot Composite	1 BNC	1 BNC	1 BNC	1 BNC	1 BNC	1 BNC
USB		2 ports	2 ports	2 ports	2 ports	2 ports	2 ports
e-SATA		-	-	-	-	-	-
Network	Remote Users	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20
	Transmission	Dual Stream	Dual Stream	Dual Stream	Dual Stream	Dual Stream	Dual Stream
	Monitoring	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer"	SSM, WebViewer, SmartViewer, Mobile Viewer
Coax Protocol		Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)	Support (CVBS and AHD/CVI/TVI)
Serial Interface		RS-485	RS-485	RS-485	RS-485	RS-485	RS-485

PERIPHERAL

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

PERIPHERAL

LED Monitor



SMT-3233
32" LED Monitor



SMT-2233
22" LED Monitor



SMT-1935
19" LED Monitor

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

2

Controller



SPC-7000
System Controller



SPC-2000
Network Controller



SPC-2010
PTZ / DVR System Controller



SPC-1010
PTZ Control Keyboard

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

Lens

Lens	SLA-M2890DN	Megapixel DC-iris Lens		Lens, 1/2.8", 3 MP, Vari-focal (2.8-9.0mm), Auto DC Iris, CS-Mount
Lens	SLA-E-M1240DNB	Megapixel DC-iris Lens	Special Order Call for Leadtime	Lens, 1/2", 6MP, Vari-focal (12-40mm), Auto DC Iris, CS-Mount
Lens	SLA-F-M419DN	Megapixel DC-iris Lens	Special Order Call for Leadtime	Lens, 1/1.8", 6MP, Vari-focal (4.1-9mm), Auto DC Iris, CS-Mount
Lens	SLA-F-M1550DNL	Megapixel DC-iris Lens	Special Order Call for Leadtime	Lens, 1/2.7", 3 MP, Vari-focal (15-50mm), Auto DC Iris, CS-Mount, Tele Range 3.3x

Para conocer accesorios ingresa a: <https://www.hanwha-security.com/en/products/accessory-selector/#>



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Hanwha Techwin

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