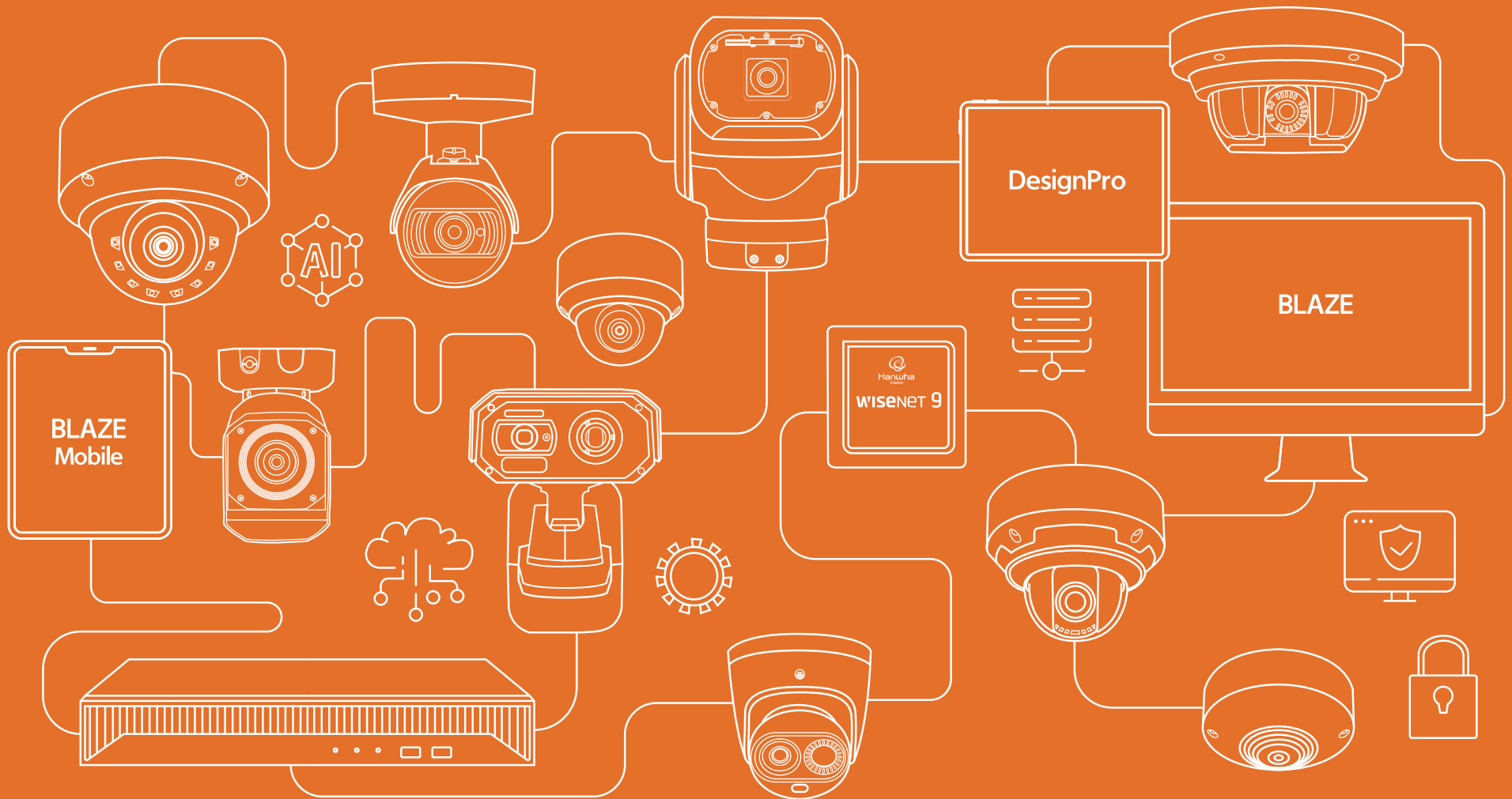


2026 1H PRODUCT PORTFOLIO



CONTENTS

INTRODUCTION

Company Overview
Cybersecurity & Sustainability
Solutions by Vertical Market
Product Naming Rule

NETWORK CAMERAS

AI Cameras
X series
P series
Q series
T series
L series

VIDEO RECORDERS

NVR
SSM Appliances
DVR

CLOUD

HealthPro
DesignPro

PERIPHERAL

Encoders/Decoders
AI Box
Audio Beacon
Monitors
Controllers
Lens

ACCESS CONTROL

Reader
Controller
Peripheral
Card

IP AUDIO

ANALOG

Cameras
DVR



5 Year Warranty



Offering long-term peace of mind with a comprehensive five-year warranty on Hanwha Vision network products globally, ensuring reliability and support.

- 5 Year product warranty
- Consistent global support
- Minimized total cost of ownership (TCO)

The 5-year warranty period has specific exceptions for consumable parts. For full details, please refer to the [official Warranty Policy](#) on our website.



Hanwha Vision ConfigPro



[ConfigPro](#) is a new device management and configuration tool for simplifying large-scale security installations. Engineered for enterprise and multi-site environments, ConfigPro lets integrators and system designers efficiently configure, manage, and maintain thousands of devices simultaneously from a centralised interface.



Technical Support Portal



A Comprehensive online hub that provides users with 24/7 self-service resources including an extensive knowledge base with FAQs, alongside valuable tools. [Technical Support Portal](#) also facilitates direct technical support by allowing users to submit and manage support tickets, ultimately streamlining problem resolution and ensuring optimal performance of Hanwha Vision products.



Hanwha Vision Open Platform



The [Hanwha Vision Open Platform](#) enables third-party developers to create and integrate intelligent applications directly into Hanwha Vision cameras, essentially transforming them into smarter devices. This provides advanced functionalities like on-camera video analytics and custom features, eliminating the need for complex, separate servers or additional computer equipment for these capabilities. As a result, users gain greater customization and efficiency for their security systems, adapting to future security needs.



Wisenet Device Manager



Streamline your surveillance system management with the [Hanwha Vision Wisenet Device Manager](#). This powerful tool simplifies discovering, configuring, and updating multiple Hanwha Vision devices across your network. From bulk IP assignment and firmware updates to advanced camera settings, gain effortless control and maximize the efficiency of your security solutions.



Hanwha Vision Learning Center



Unlock your full potential and master the latest in video surveillance technology with the [Hanwha Vision Learning Center](#). Our expert-led, practical training dives deep into cutting-edge solutions, emerging technologies, and critical industry trends. From camera basics to advanced AI and VMS configurations, our comprehensive, self-paced courses are designed to build your expertise.

* Product specifications in this brochure may differ as products are continuously updated to meet our customers' needs. We recommend to check out our website for the latest specs: www.HanwhaVision.com

Hanwha Group

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

Founded in 1952, Hanwha continues to grow by quickly anticipating and responding to rapidly changing business environments with a balanced business portfolio that includes aerospace, energy & materials, finance and retail & services. As of 2024, we are the seventh largest business enterprise in South Korea and recognized among the world's top 500 companies by a prestigious global publication, as well as one of the 100 most influential companies by renowned international media.

Hanwha has become a global leader in a number of industries due to its culture of innovation, focused on breakthrough technologies, and sound financial structures.

Sales
2024

64.1 USD Billions

Global Networks
As of end of 2023

821

Years of History
Founded in 1952

73

Business Enterprise in
South Korea
Total asset basis, as of end of 2024

TOP 7



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

Hanwha Vision

'Hanwha Vision' will become your vision partner who realizes a sustainable future and provides new values.

Over the past 35 years, we have established ourselves as a global video security specialist based on world-class optical design, manufacturing, and image processing technology. We have been ensuring safety and security around the world and across society with products and solutions with outstanding performance, high reliability, and industry-leading cybersecurity policies.

Our growth and innovation started with our customers' needs. This began with their desire to improve safety and security, now evolving to answer wider business opportunities and challenges. Ultimately, all our solutions enable our customers to reach their goals. Our investment in innovation and continually pushing the boundaries of what's possible in video is core to our competitiveness, ensuring our steady success in vision solutions.

Scan this QR code to view full company overview



History

- | | | | |
|------|--|------|--|
| 2025 | <ul style="list-style-type: none">– Launched a 26MP ultra-high-resolution AI camer– Launched Wisenet 9 SoC and the second-generation X Series camera lineup– Achieved 'ISO37001' Anti-Bribery Management System certification | 2019 | <ul style="list-style-type: none">– Acquired 'Secure by Default'– Launched the world's first 55x IR PTZ camera |
| 2024 | <ul style="list-style-type: none">– Joined 'UN Global Compact(UNGC)'– Launched Industry's First Dual Sensor BCR Camera | 2018 | <ul style="list-style-type: none">– Established Hanwha Techwin Vietnam manufacturing corporation |
| 2023 | <ul style="list-style-type: none">– Changed company name to 'Hanwha Vision'– Launched World's First built-in SSD camera, SolidEDGE– Vietnam Factory reached cumulative production of 10 million units | 2017 | <ul style="list-style-type: none">– Wisenet 5 SoC and X Series camera series launched– Acquired CES, a UK Government cyber security certification |
| 2022 | <ul style="list-style-type: none">– Launched IP audio system | 2016 | <ul style="list-style-type: none">– Establishment of Hanwha Techwin Middle East FZE |
| 2021 | <ul style="list-style-type: none">– Launched the X AI camera series– Launched AI NVR and AI integrated solution– Developed AI-based infectious disease response solutions | 2015 | <ul style="list-style-type: none">– Launched Hanwha Techwin |
| 2020 | <ul style="list-style-type: none">– 30th anniversary of the video security business– Launched the P Series AI camera series– Launched Wisenet 7 SoC, a camera series with Wisenet 7 SoC acquired UL CAP (UL Cybersecurity Assurance Program) | 2013 | <ul style="list-style-type: none">– Wisenet 3 SoC and camera series with Wisenet 3 SoC are launched |
| 2019 | <ul style="list-style-type: none">– UK Government official cybersecurity certification | 2012 | <ul style="list-style-type: none">– Launched the world's first 37x IR PTZ camera |
| | | 2009 | <ul style="list-style-type: none">– Establishment of Hanwha Techwin Tianjin and Shanghai |
| | | 2008 | <ul style="list-style-type: none">– Launched the world's first 37x PTZ camera |
| | | 2005 | <ul style="list-style-type: none">– Developed advanced intruder automatic location tracking system |
| | | 2004 | <ul style="list-style-type: none">– Developed Winner 3 Analog ISP chip |
| | | 2001 | <ul style="list-style-type: none">– Establishment of Hanwha Techwin Europe |
| | | 1997 | <ul style="list-style-type: none">– Launched the world's best ultra-low illumination video surveillance camera |
| | | 1993 | <ul style="list-style-type: none">– Developed Korea's first Auto Iris lens for CCTV |
| | | 1990 | <ul style="list-style-type: none">– Started video surveillance business, establishment of Hanwha Techwin America |

R&D POWER

Hanwha Vision continues to accelerate research and development efforts to sustain its competitive edge.

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

In 2022, Hanwha Vision established an Innovation Center in the US, with the goal of developing key innovations for the future, such as AI and cloud. Eventually we see these becoming Hanwha Vision's core strengths.

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

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



HIGH-TECH POWERED IN VIETNAM

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

Scan this QR to view Hanwha Vision's competitiveness in Manufacturing & SCM.



Scan this QR to view Hanwha Vision's competitiveness in Quality.



GLOBAL NETWORK

Hanwha Vision has a close relationship with customers and partners around the world across R&D, manufacturing and sales.

- Hanwha Vision R&D Center (HQ, South Korea)
- 5 Global Subsidiaries (including Vietnam Manufacturing)
- 12 Branch Offices
- 1 Innovation Center

Scan this QR to view Hanwha Vision's full global network, including subsidiaries and offices.



Scan this QR to view Global Hanwha Vision Innovation and Technology Experience Center (HITE).



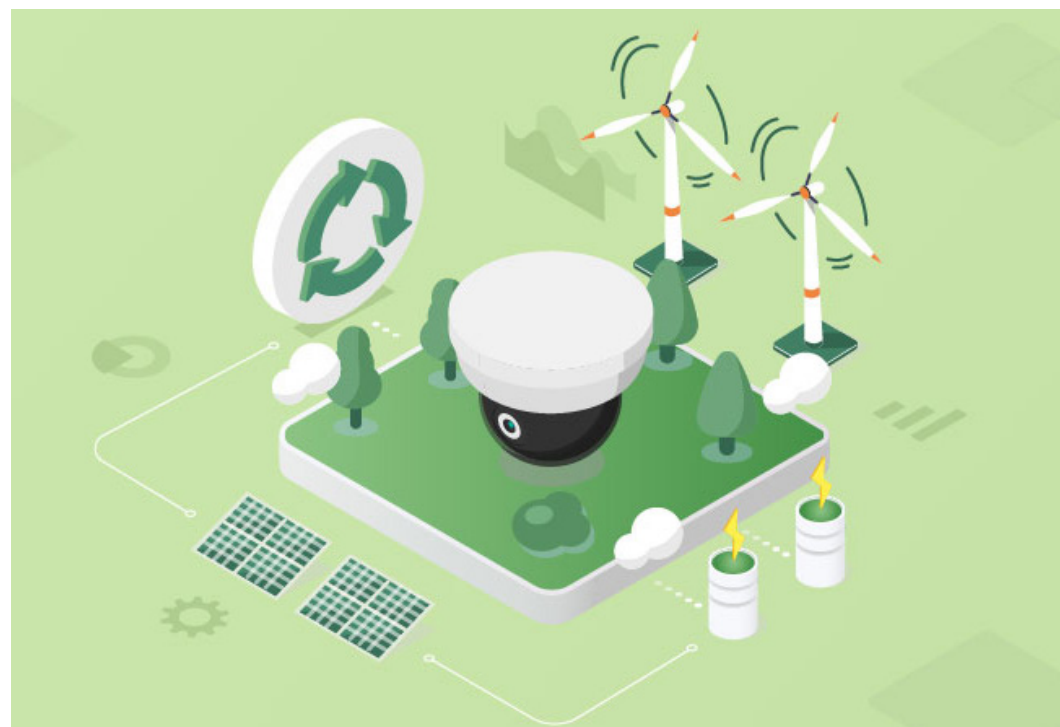
SUSTAINABILITY

As a responsible member of society, Hanwha Vision seeks to provide fundamental solutions to solve economic, environmental, and social problems and lead positive change through our business, technology, and social activities. Along with this, based on the philosophy of 'Together, further,' Hanwha Vision is deeply committed to responsible management, integrating Environmental, Social, and Governance (ESG) principles across its operations. This includes stringent environmental compliance such as RoHS, ISO14001, green purchasing, fostering a positive social impact by respecting employee rights, promoting work-life balance, collaborating with SMEs, and upholding product quality and worker safety such as ISO 9001 and ISO 45001.

Scan this QR to learn more about Hanwha Vision's ESG initiatives.



Scan this QR to view Hanwha Vision's Sustainability Report.



END-TO-END CYBERSECURITY



View Wisenet 9
Cybersecurity
White Paper

Uncompromising Cyber & Product Reliability

We establish trust through rigorous security engineering. By embedding essential safeguards like secure login and vulnerability management from the very first stage of development, Hanwha Vision meets the world's most stringent benchmarks: ETSI EN 303 645 and IEC 62443-4-1. Experience the next level of product reliability with our globally certified cybersecurity framework.

Robust Hardware & Platform Security

Unassailable Hardware & Platform Integrity Featuring the FIPS 140-3 Level 3 certified 'Secure Element (SE),' our systems support Secure Boot, Secure OS/Storage, Signed Firmware, and Secure JTAG. These integrated layers of defence guarantee system integrity and fundamentally block any unauthorized access.

Root of Trust: Secure Manufacturing

Hanwha Vision has established its own proprietary Device Certificate Issuance System. By embedding unique device certificates during the manufacturing process—not just the development stage—we ensure a complete and foolproof security authentication system from the very moment of shipment.

※ S-CERT: Cyber Security Incident Response Team
For any security-related inquiries or to report an incident, please contact our dedicated team at secure.cctv@hanwha.com.



Software Transparency (SBOM)

Proactive Supply Chain Security via SBOM ensure full transparency by providing a Software Bill of Materials (SBOM). By disclosing every software component, we proactively manage supply chain risks and empower our customers with complete visibility into their security environment.

Tailored Solutions for EVERY INDUSTRY

At Hanwha Vision, we believe that effective security goes beyond generic products. It's about understanding the unique challenges and opportunities within each vertical market. Hanwha Vision delivers purpose-built vision solutions that are designed to make a real difference. We leverage our deep expertise in hardware design, manufacturing, and cutting-edge software development, including advanced AI analytics and cloud integration, to create solutions precisely tuned to your industry's specific needs. From retail to finances and data center, our comprehensive portfolio offers intelligent insights and robust protection.



Data Center
Proven solutions for safer and smarter data centers



Logistics
Robust solutions for safer logistic management, and across general manufacturing operations



Retail
Solutions to create more secure, efficient, and insightful retail operations



Scan this QR to access detailed information on [Hanwha Vision's innovative security solutions for vertical markets](#).



Scan this QR to discover [Hanwha Vision's proven impact across diverse industries](#).



Oil & Gas
Robust, specialized, and reliable solutions to ensure critical safety and operational excellence in oil & gas



Finance
Advanced, intelligent video solutions securing financial institutions, protecting assets, and optimizing operations



General Manufacturing
Solutions optimizing manufacturing safety, streamlining production, and boosting operational efficiency



Transportation
Solutions enabling safer, smarter and more efficient transportation



Healthcare
Intelligent video solutions enhance patient safety, optimize operations, and secure healthcare facilities effectively



Residential Complex
Enhancing residential safety, managing access, and fostering secure, harmonious community living for complexes



Education
Creating safer learning environments, enhancing campus security, and optimizing operations for education



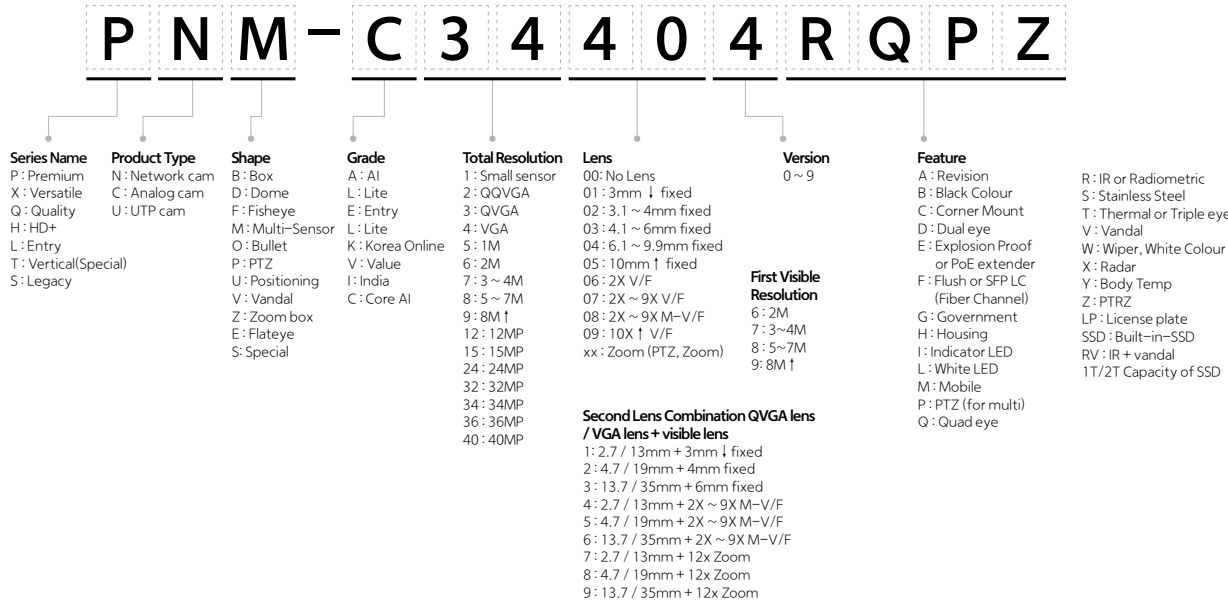
City Surveillance
Empowering smarter cities with advanced surveillance for public safety, traffic management, and urban insights

PRODUCT NAMING RULE

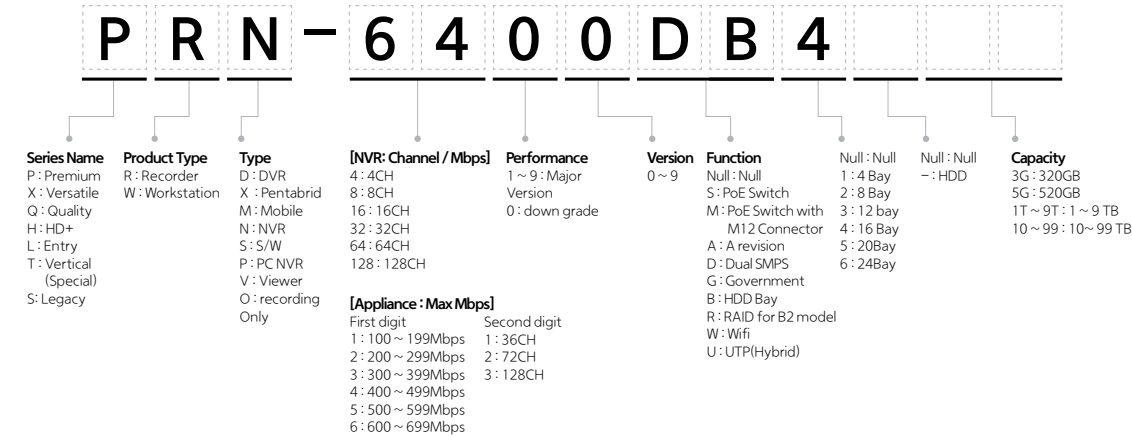
Hanwha Vision's product naming system provides a systematic and clear structure to identify our extensive range of security solutions—from advanced cameras to robust video recorders and all accompanying peripherals. Each product name acts as a concise identifier, composed of specific codes that instantly convey its core attributes. For more information, see: [Product Naming Rule](#).



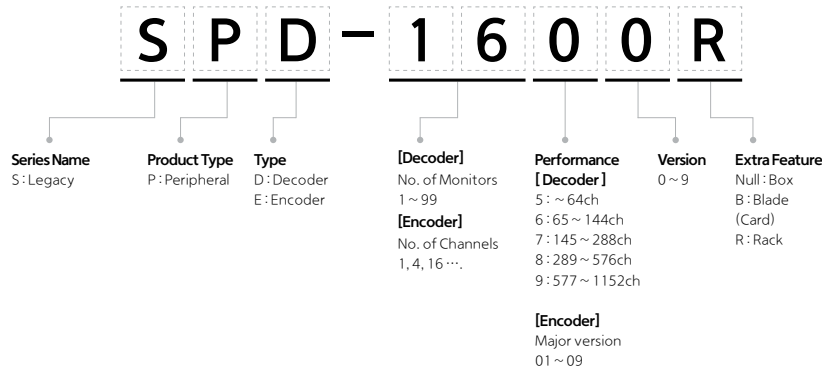
Camera



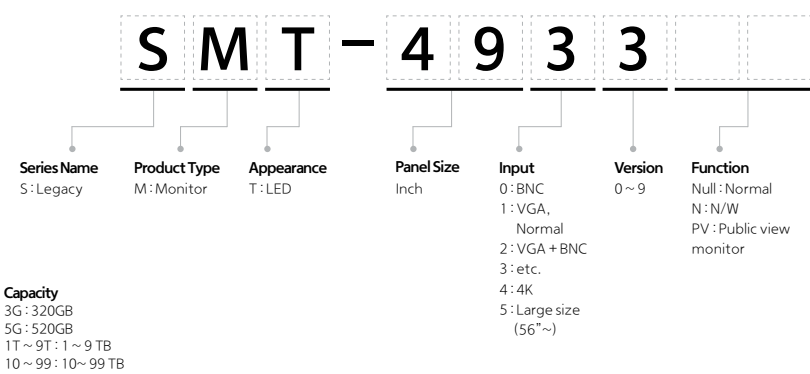
Recorder



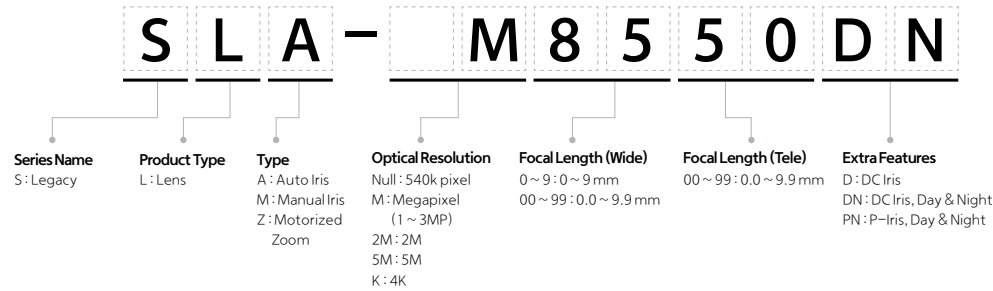
Decoder/Encoder



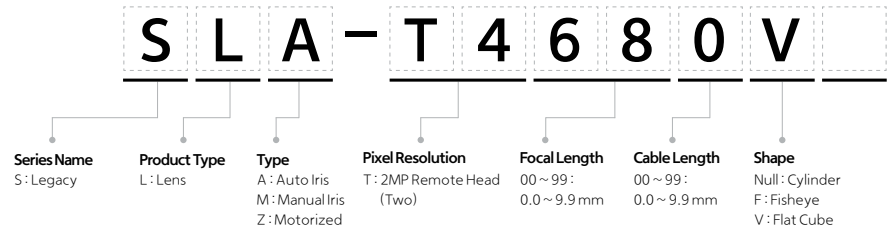
Monitor



Lens : CS Mount



Lens : Remote Head





XNV-A9085R
8MP IR Outdoor Vandal Dome AI Camera



XND-A9085RV
8MP IR Indoor Dome AI Camera



XNV-A8085R
5MP IR Outdoor Vandal Dome AI Camera



XND-A8085RV
5MP IR Indoor Dome AI Camera

Imaging Device	1/1.8" CMOS		1/2.8"CMOS	
Resolution / Max. Frame Rate	8MP/30fps		5MP/30fps	
Min. Illumination	Colour(1/30sec, 30IRE): 0.04, BW(1/30sec, 30IRE): 0.004			
Video Out	USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.			
Focal Length (Zoom Ratio)	4.4~9.3, Optical: 2.1x		3.3~9.3, Optical 2.8x	
Angular Field of View	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)		H: 99° (Wide) ~ 31° (Tele) V: 71° (Wide) ~ 23° (Tele) D: 133° (Wide) ~ 39° (Tele)	
Pan / Tilt / Rotate Range	0° ~360° / -45° ~85° / 0° ~355°			
IR Viewable Length	50 m (164.04 ft)			
Day & Night	Auto(ICR)			
Wide Dynamic Range	120			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	Support		Support (built-in gyro sensor)	
Analytics	Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/ Appear/Disappear), Defocus detection, Tampering, Audio detection, Shock detection			
Business Intelligence	People counting, Queue management, Heatmap, Vehicle counting, Crowd counting			
Alarm I/O	2 configurable I/O ports, 12VDC output, Support alarm I/O via optional I/O box		2 configurable I/O ports, 12VDC output, Support extra alarm I/O via optional I/O box	
Audio I/O	Selectable(mic in/line in) / Line out	Selectable(mic in/line in), Built-in mic / Line out		Selectable(mic in/line in) / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	WiseStream(Based on AI engine)			
Streaming	Up to 20 users / Support / Up to 5 profiles, 3 virtual channel support			
Edge Storage	Micro SD/SDHC/SDXC: Max. 1TB x 2slot(Total 2TB)			
Application Programming Interface	ONVIF: S/G/ T/ M, SUNAPI(HTTP API), Hanwha Vision Open Platform			
Operating Temperature / Humidity	-50° C~+60° C(-58° F~+140° F) / 0~100% RH(condensing)	-25° C~+50° C(-13° F~+122° F) / 0~100% RH(condensing)	-50° C~+60° C(-58° F~+140° F) / 0~100% RH(condensing)	-25° C~+50° C(-13° F~+122° F) / 0~100% RH(condensing)
Certification		IP52, IK10	IP66, IP67, IK10, NEMA TS 2-2013 (2.2.7,2.2.8, 2.2.9), NEMA 250 type 4X	IP52, IK10
Power Consumption	PoE: PoE+ : Max. 14.2W, typical 9.4W PoE : Max. 12.9W,typical 8.3W 12VDC: Max. 14.5W, typical 9.5W			
Product Dimensions / Weight	ø 180x125mm(ø 7.09x4.92") / 1,860g(4.10lb)	ø 160x125mm(ø 6.30x4.92") / 1,560g(3.44 lb)	ø 180x125mm(ø 7.09x4.92") / 1,860g(4.10 lb)	ø 160x125mm(ø 6.30x4.92") / 1,560g(3.44 lb)



XNV-A9084R
8MP AI IR Vandal Dome Camera



XND-A9084RV
8MP AI IR Dome Camera



XNO-A9084R
8MP AI IR Bullet Camera

Imaging Device	1/1.8" CMOS		1/1.8" CMOS		1/1.8" CMOS	
Resolution / Max. Frame Rate	8MP / 30fps					
Min. Illumination	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE), BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)					
Video Out	USB Type C. Preview and installation ONLY.					
Focal Length (Zoom Ratio)	4.4~9.3mm(2.1x) motorized varifocal		4.4~9.3mm(2.1x) motorized varifocal		4.4~9.3mm(2.1x) motorized varifocal	
Angular Field of View	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)		H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)		H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)	
Pan / Tilt / Rotate Range	0° ~ 360° / 0° ~ 75° / 0° ~ 355°		0° ~ 360° / 0° ~ 75° / 0° ~ 355°		0° ~ 360° / 0° ~ 90° / 0° ~ 355°	
IR Viewable Length	WiseIR 50m(164.04ft)					
Day & Night	Auto(ICR)					
Wide Dynamic Range	120dB					
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V					
Digital Image Stabilization	Support					
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Person(Gender, Clothing top/bottom Colour, Bag), Face(Age, Gender, Mask, Glasses), Vehicle(Car/Bus/Truck/Motorcycle/Bicycle, Colour), Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/ Appear/Disappear), Slip & fall detection, Face mask detection, Social distancing detection Analytics events: Defocus detection, Tampering, Shock detection, Audio detection					
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap					
Alarm I/O	2 configurable I/O ports *Support extra alarm I/O via optional I/O box					
Audio I/O	Selectable(mic in/line in) / Line out					
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG					
WiseStream	WiseStream(Based on AI engine)					
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 5 profiles, 3 virtual channel support)					
Edge Storage	Micro SD/SDHC/SDXC 1slot 1TB					
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform					
Operating Temperature / Humidity	-40° C ~ +50° C(-40° F ~ +122° F) +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7), * Start up should be done at above -30° C 0~100%RH(Condensing) Humidity control with AIR vent		-10° C ~ +50° C(-14° F ~ +122° F) / 0~100%RH(Condensing) Humidity control with AIR vent		-40° C ~ +60° C(-40° F ~ +140° F) +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0~100%RH(Condensing) Humidity control with AIR vent	
Certification	IP66, IP67, NEMA4X, IK10, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)		IP52, IK10		IP66, IP67, NEMA4X, IK10, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)	
Power Consumption	PoE: Max. 11.2W, typical 8.4W, Support Wisepower, Power monitoring(Max./Current/Avg.), ECO mode					
Product Dimensions / Weight	ø 160x118mm(6.30x4.65"), 1,220g(2.69lb)		ø 160x118mm(6.30x4.65"), 1,020g(2.25lb)		ø 93.4x276.6mm(3.68x10.89"), 1,630g(3.59lb)	



XNV-A8084R
5MP AI IR Vandal Dome Camera



XND-A8084RV
5MP AI IR Dome Camera



XNO-A8084R
5MP AI IR Bullet Camera

Imaging Device	1/2.8" CMOS		
Resolution / Max. Frame Rate	5MP / 30fps		
Min. Illumination	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE), BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)		
Video Out	USB Type C. Preview and installation ONLY		USB: Micro USB Type C for installation
Focal Length (Zoom Ratio)	3.3~9.3mm(2.8x) motorized varifocal		
Angular Field of View	H: 99° (Wide) ~ 31° (Tele) V: 71° (Wide) ~ 23° (Tele) D: 133° (Wide) ~ 39° (Tele)		
Pan / Tilt / Rotate Range	0° ~ 360° / 0° ~ 75° / 0° ~ 355°	0° ~ 360° / 0° ~ 90° / 0° ~ 355°	
IR Viewable Length	WiseIR 50m(164.04ft)		
Day & Night	Auto(ICR)		
Wide Dynamic Range	120dB		
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		
Digital Image Stabilization	Support		
Analytics	Classified object type: Person/Face/Vehicle/License plate		
	Attributes: Person(Gender, Clothing top/bottom Colour, Bag), Face(Age, Gender, Mask, Glasses), Vehicle(Car/Bus/Truck/Motorcycle/Bicycle, Colour),		
	Support BestShot		
	Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Slip & fall detection, Face mask detection, Social distancing detection		
	Analytics events: Defocus detection, Tampering, Shock detection, Audio detection		
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap		
Alarm I/O	2 configurable I/O ports *Support extra alarm I/O via optional I/O box		
Audio I/O	Selectable(mic in/line in) / Line out		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
WiseStream	WiseStream(Based on AI engine)		
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 5 profiles, 3 virtual channel support)		
Edge Storage	Micro SD/SDHC/SDXC 1slot 1TB		
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform		
Operating Temperature / Humidity	-40° C ~ +50° C (-40° F ~ +122° F) +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0~100%RH(Condensing) Humidity control with AIR vent	-10° C ~ +50° C (-14° F ~ +122° F) / 0~100%RH(Condensing) Humidity control with AIR vent	-40° C ~ +60° C (-40° F ~ +140° F) +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C, 0~100%RH (Condensing), Humidity control with AIR vent
Certification	IP66, IP67, NEMA4X, IK10, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)	IP52, IK10	IP66, IP67, NEMA4X, IK10, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)
Power Consumption	PoE: Max. 9.4W, typical 7.0W, Support Wisepower, Power monitoring (Max./Current/Avg.), ECO mode		
Product Dimensions / Weight	ø 160x118mm(6.30x4.65"), 1,210g(2.67lb)	ø 160x118mm(6.30x4.65"), 1,010g(2.23lb)	ø 93.4x276.6mm(3.68x10.89"), 1,630g(3.59lb)



XNV-9083RZ
8MP AI IR Vandal Dome Camera



XNV-9083R
8MP AI IR Vandal Dome Camera



XND-9083RV
8MP AI IR Dome Camera



XNO-9083R
8MP AI IR Bullet Camera

Imaging Device	1/1.8" CMOS			
Resolution / Max. Frame Rate	8MP / 30fps			
Min. Illumination	Colour: 0.03Lux(F1.3, 1/30sec, 30IRE) BW: 0.003Lux(F1.3, 1/30sec, 30IRE)	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE) 0Lux(IR LED on)		
Video Out	–	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation, USB: Micro USB Type B, 1280x720 for installation		
Focal Length (Zoom Ratio)	4.4~9.3mm(2.1x) motorized varifocal			
Angular Field of View	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)			
Pan / Tilt / Rotate Range	Remote adjustment(Max. 200cycles) 0° ~ 350° / 0° ~ 85° / 0° ~ 340°	0° ~ 360° / 0° ~ 85° / 0° ~ 355°	0° ~ 360° / 0° ~ 85° / 0° ~ 355°	0° ~ 360° / 0° ~ 90° / 0° ~ 355°
IR Viewable Length	WiseIR 15m(49.21ft) 30m(98.43ft) wall installation scenario	WiseIR 50m(164.04ft)		
Day & Night	Auto(ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	Support			
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(Car/Bus/Truck/Motorcycle/Bicycle, Colour) Support DetectionShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Analytics events: Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)			
Business Intelligence	Based on AI engine: People/Vehicle counting	Based on AI engine: People/Vehicle counting, Queue management, Heatmap		
Alarm I/O	–	2 configurable I/O ports DC 12V output(Max. 50mA)		
Audio I/O	Support via optional I/O box	Selectable(mic in/line in) / Line out		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	Manual, WiseStream III			
Streaming	Up to 10 profiles, 3 virtual channel support			
Edge Storage	Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)			
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API), Hanwha Vision Open Platform			
Operating Temperature / Humidity	–50° C ~ +55° C (–58° F ~ +131° F) * Start up should be done at above –30° C 0 ~ 100%RH(condensing) Humidity control with AIR vent	–25° C ~ +50° C (–13° F ~ +122° F) 0 ~ 100% RH(condensing) Humidity control with AIR vent	–50° C ~ +55° C (–58° F ~ +131° F) +74° C (+165° F)(Max) based on NEMA–TS 2(2.2.7) * Start up should be done at above –30° C, 0~100%RH (condensing) Humidity control with AIR vent	
Certification	IP66, IP67, IP6K9K, NEMA 250 type 4X, IK10+	IP66, IP67, IP6K9K, NEMA 250 type 4X, IK10+	IP52, IK10	IP66, IP67, NEMA4X, IK10
Power Consumption	PoE+: Max 22.5W, typical 12.1W	PoE+: Max 22.5W, typical 17.9W , 12VDC: Max 20.0W, typical 15.6W, Power redundancy failover support		
Product Dimensions / Weight	ø 180x135mm(ø 7.09x5.31"), 2,000g(4.41 lb)	ø 180x125mm(ø 7.09x4.92"), 1,900g(4.19 lb)	ø 160x125mm(ø 6.30x4.92"), 1,600g(3.53 lb)	ø 93.4x298.4mm(ø 3.68x11.75"), 2,200g(4.85 lb)



XNF-9013RV
12MP AI Fisheye Camera



W
12MP AI IR Fisheye Camera



XNF-A9014RV
12MP AI IR Fisheye Camera

Imaging Device	1/2.3" 12MP CMOS	1/1.6" CMOS	
Resolution / Max. Frame Rate	12MP / 30fps	12MP / 30fps	
Min. Illumination	Colour: 0.39 Lux (F2.2, 1/30sec) BW : 0.039 Lux(IR LED on)	Colour(1/30sec, 30IRE): 0.02 / BW(1/30sec, 30IRE) 0.001	
Video Out	CVBS : 1.0 Vp-p / 75Ω composite for installation USB: Micro USB Type B	-	
Focal Length (Zoom Ratio)	1.08mm	1.76mm	
Angular Field of View	H: 187° / V: 187° / D: 187°	H: 185° / V: 185° / D: 185°	
Pan / Tilt / Rotate Range	Lens Rotation	Digital rotation	
IR Viewable Length	WiseIR, PoE : 8m(26.25ft), PoE+ : 13m(42.65ft)	WiseIR: 20m (64.51ft)	
Day & Night	Auto(ICR)		
Wide Dynamic Range	extremeWDR (120dB)	120dB	
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		
Digital Image Stabilization	-	Support	
Analytics	Classified object type: Person/Face/Vehicle/License plate Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Support DetectionShot Analytics events : Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Virtual area (Appear/Disappear)	Classified object type: Person/Vehicle Attributes: Person/Vehicle (Colour) Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Support BestShot Analytics events : Defocus detection, Tampering, Audio detection, Shock detection	
Business Intelligence	Based on AI Engine: People/Vehicle counting, Queue management, Heatmap	Based on AI Engine: People counting, Queue management, Heatmap, Vehicle counting, Crowd counting	
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports, Support extra alarm I/O via optional I/O box	
Audio I/O	Selectable(mic in/line in), Built-in mic / Line out	Selectable(mic in/line in), Built-in 3mics / Line out	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
WiseStream	Manual, WiseStream III (Based on AI engine)	WiseStream(Based on AI engine)	
Streaming	Up to 10 profiles	Up to 20 users / Support / Up to 5 profiles	
Edge Storage	Micro SD/SDHC/SDXC 2slots 1TB(512GBx2)	Micro SD/SDHC/SDXC Max. 1TB x 1slot	
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API), Hanwha Vision Open Platform		
Operating Temperature / Humidity	-40° C ~ +60° C (-40° F ~ +140° F) / 0~95% RH(non-condensing)	-10° C ~ +55° C(+14° F ~ +131° F) / 0~95% RH(non-condensing)	-40° C ~ +55° C(-40° F ~ +131° F) / 0~100% RH(condensing)
Certification	IP66, NEMA4X, IK10, Metal shielded RJ-45	IP42	
Power Consumption	PoE: Max 12.95W, typical 9.4W, 12VDC: Max 12.9W, typical 9.0W PoE+: Max 23.0W, typical 9.4W, 12VDC: Max 22.0W, typical 9.0W	PoE: Max. 19.8W, typical 10.5W 12VDC: Max. 20W, typical 10.9W	
Product Dimensions / Weight	ø 160x72mm(ø 6.23x2.84"), 1,170g (2.58lb)	Ø 160x60.4mm(6.23x2.38") / 1000g(2.20lb)	Ø 160x75mm(6.23x2.95") / 1020g(2.25 lb)



XNF-A8014R
6MP AI IR Fisheye Camera



XNF-A8014RV
6MP AI IR Fisheye Camera



XNV-8083RZ
6MP AI IR Vandal Dome Camera



XNV-8083Z
6MP AI Vandal Dome Camera

Imaging Device	1/1.6" CMOS		1/1.8" CMOS	
Resolution / Max. Frame Rate	6MP/30fps		6MP / 30fps	
Min. Illumination	Colour(1/30sec, 30IRE): 0.02, BW(1/30sec, 30IRE): 0.001		Colour: 0.03Lux(F1.3, 1/30sec, 30IRE) BW: 0.003Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.03Lux(F1.3, 1/30sec, 30IRE) BW: 0.003Lux(F1.3, 1/30sec, 30IRE)
Video Out	-			
Focal Length (Zoom Ratio)	1.76mm		4.4~9.3mm(2.1x) varifocal	
Angular Field of View	H: 185° / V: 185° / D: 185°		H: 113° (Wide) ~ 47° (Tele), V: 58° (Wide) ~ 26° (Tele), D: 138° (Wide) ~ 54° (Tele)	
Pan / Tilt / Rotate Range	Digital rotation		Remote adjustment(Max. 200cycles) 0° ~ 350° / 0° ~ 85° / 0° ~ 340°	0° ~ 350° / 0° ~ 85° / 0° ~ 340°
IR Viewable Length	17m(55.77ft)		15m(49.21ft) 30m(98.43ft) wall installation scenario	-
Day & Night	Auto(ICR)		Auto(ICR)	
Wide Dynamic Range	120dB		extremeWDR (120dB)	
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		WiseNR II (Based on AI engine), SSNR V	
Digital Image Stabilization	Support		Support	
Analytics	Classified object type: Person/Vehicle Attributes: Person/Vehicle (Colour) Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Motion detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear) Support BestShot Analytics events : Defocus detection, Tampering, Audio detection, Shock detection		Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(Type: car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection Analytics events: Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Virtual area(Appear/Disappear)	
Business Intelligence	Based on AI Engine: People counting, Queue management, Heatmap, Vehicle counting, Crowd counting		Based on AI engine: People/Vehicle counting	
Alarm I/O	2 configurable I/O ports		-	
Audio I/O	Selectable(mic in/line in), Built-in 3mics / Line out		-	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		H.265/H.264: Main/Baseline/High, MJPEG	
WiseStream	WiseStream(Based on AI engine)		Manual, WiseStream III (Based on AI engine)	
Streaming	Up to 20 users / Support / Up to 5 profiles		Unicast(20 users) / Multicast / Multiple streaming (Up to 10 profiles)	
Edge Storage	Micro SD/SDHC/SDXC: Max. 1TB x 1slot		Micro SD/SDHC/SDXC 2slots 1TB(512GBx2)	
Application Programming Interface	ONVIF: S/G/ T/ M, Others: SUNAPI(HTTP API), Hanwha Vision Open Platform		ONVIF Profile S/G/T/M SUNAPI(HTTP API), Hanwha Vision Open Platform	
Operating Temperature / Humidity	-10° C ~ +55° C(+14° F ~ +131° F) / 0~95% RH(non-condensing)		-40° C ~ +55° C(-40° F ~ +131° F) / 0~100% RH(condensing)	-50° C ~ +55° C(-58° F ~ +131° F) * Start up should be done at above -30° C 0~100%RH(condensing) Humidity control with AIR vent
Certification	IP42		IP66, IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X	
Power Consumption	PoE: Max. 19.8W, typical 10.5W, 12VDC: Max 20.0W, typical 10.9W		PoE+: Max 22.5W, typical 12.1W	
Product Dimensions / Weight	Ø 160x60.4mm(6.23x2.38") / 1000g(2.20lb)		Ø 160x75mm(6.23x2.95") / 1020g(2.25lb)	

AI Camera

18



XNV-8093R
6MP AI IR Vandal Dome Camera



XND-8093RV
6MP AI IR Dome Camera



XNO-8083R
6MP AI IR Bullet Camera



XND-8083RV
6MP AI IR Dome Camera

Imaging Device	1/1.8" CMOS		
Resolution / Max. Frame Rate	6MP/30fps		
Min. Illumination	Colour: 0.06Lux(F1.7, 1/30sec, 30IRE) BW: 0.006Lux(F1.7, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation USB: Micro USB Type B		
Focal Length (Zoom Ratio)	10.9~29mm(2.7x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	
Angular Field of View	H: 42° (Wide) ~ 15° (Tele) V: 23° (Wide) ~ 8° (Tele) D: 49° (Wide) ~ 17° (Tele)	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)	
Pan / Tilt / Rotate Range	0° ~ 360° / 0° ~ 85° / 0° ~ 355°	0° ~ 360° / 0° ~ 90° / 0° ~ 360°	0° ~ 360° / 0° ~ 85° / 0° ~ 355°
IR Viewable Length	WiseIR 70m (229.66ft)	WiseIR 50m(164.04ft)	
Day & Night	Auto (ICR)		
Wide Dynamic Range	extremeWDR (120dB)		
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		
Digital Image Stabilization	Support(built-in gyro sensor)	Support	Support(built-in gyro sensor)
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection Analytics events: Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)		
Business Intelligence	Based on AI engine: People/Vehicle counting, Queue management, Heatmap		
Alarm I/O	2 configurable I/O ports, DC 12V output		
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
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
WiseStream	Manual, WiseStream III (Based on AI engine)		
Streaming	Up to 10 profiles, 3 virtual channel support	Unicast(20 users) / Multicast / Multiple streaming (Up to 10 profiles)	
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GBx2)		
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform		
Operating Temperature / Humidity	-50° C ~ +55° C (-58° F ~ +131° F) * Start up should be done at above -30° C 0 ~ 100% RH(condensing) Humidity control with AIR vent	-25° C ~ +50° C (-13° F ~ +122° F) / 0 ~ 100% RH(condensing) Humidity control with AIR vent	-50° C ~ +60° C (-58° F ~ +140° F) +74° C(+165° F)(Max) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0 ~ 100% RH(condensing) Humidity control with AIR vent
Certification	IP66, IP67, IP6K9K, NEMA4X, IK10+	IP52, IK10	IP66, IP67, NEMA4X, IK10
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover		
Product Dimensions / Weight	ø 180x125mm(ø 7.09x4.92"), 1,900g(4.19 lb)	ø 160x125mm(ø 6.30x4.92"), 1,600g(3.53 lb)	ø 93.4x298.4mm(ø 3.68x11.75"), 2,200g(4.85 lb)
	ø 160x125mm(6.30x4.92"), 1,600g(3.53lb)		

AI Camera

19



XNV-A6084R
2MP AI IR Vandal Dome Camera



XND-A6084RV
2MP AI IR Dome Camera



XNO-A6084R
2MP AI IR Bullet Camera

Imaging Device	1/2.8" CMOS		
Resolution / Max. Frame Rate	2MP/60fps		
Min. Illumination	Colour: 0.02Lux(F1.3, 1/30sec, 30IRE) BW: 0.002Lux(F1.3, 1/30sec, 30IRE)		
Video Out	USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.		
Focal Length (Zoom Ratio)	2.8~12mm		
Angular Field of View	H: 120° ~27° V: 63° ~15° D: 143° ~32°		
Pan / Tilt / Rotate Range	0° ~360° / 0° ~75° / 0° ~355°	0° ~350° / 0° ~90° / 0° ~350°	
IR Viewable Length	WiseIR 50m(164.04ft)		
Day & Night	Auto(ICR)		
Wide Dynamic Range	150dB		
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		
Digital Image Stabilization	Support		
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Person (Upper/Lower clothes colour, Gender, Bag) Vehicle (Type(car, bus, truck, motorcycle, bicycle), Colour) Face (Age, Gender, Face mask, Glasses) Support BestShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/ Appear/Disappear) Analytics events: Defocus detection, Tampering, Audio detection, Shock detection		
Business Intelligence	Based on AI Engine: People counting, Queue management, Heatmap, Vehicle counting, Crowd counting		
Alarm I/O	2 configurable I/O ports / Support extra alarm I/O via optional I/O box		
Audio I/O	Selectable(mic in/line in), Line out		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
WiseStream	WiseStream(Based on AI engine)		
Streaming	Unicast (Up to 20 users) Multicast (Support) Multiple Streaming (Up to 5 profiles, 3 virtual channel support)		
Edge Storage	Micro SD/SDHC/SDXC Max. 1TB x 1slot		-
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform		
Operating Temperature / Humidity	-40° C~+55° C(-40° F~+131° F), 0~100% RH(condensing), +74° C(+165° F)(Max) based on NEMA-TS 2(2.2.7), Start up should be done at above-30° C, Humidity control with AIR vent	-10° C~+50° C(+14° F~+122° F), 0~100% RH(condensing) Humidity control with AIR vent	-40° C~+60° C(-40° F~+140° F), 0~100% RH(condensing) +74° C(+165° F)(Max) based on NEMA-TS 2(2.2.7). Start up should be done at above-30° C, Humidity control with AIR vent
Certification	IP66, IP67, IK10, NEMA TS 2-2013 (2.2.7,2.2.8, 2.2.9), NEMA 250 type 4X	IP52, IK10,	IP66, IP67, IK10, NEMA TS 2-2013 (2.2.7,2.2.8, 2.2.9), NEMA 250 type 4X
Power Consumption	PoE: Max. 10.2W, typical 5.0W		
Product Dimensions / Weight	ø 160x118mm(6.30x4.65"), 1,243g(2.74lb)	ø 160x118mm(6.30x4.65"), 1,032g(2.27lb)	ø 93.4x276.6mm(3.68x10.89"), 1,660g(3.66lb)



XNV-6083RZ
2MP AI IR Vandal Dome Camera



XNV-6083Z
2MP AI Vandal Dome Camera



XNO-6123R
2MP AI IR Bullet Camera



XNV-6083R
2MP AI IR Vandal Dome Camera



XND-6083RV
2MP AI IR Dome Camera

Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	2MP / 120fps			
Min. Illumination	Colour: 0.01Lux(F1.3, 1/30sec, 30IRE) BW: 0.001Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE)	Colour: 0.03Lux(F1.6, 1/30sec, 30IRE) BW: 0.003Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.			
Focal Length (Zoom Ratio)	2.8~12mm (4.3x) varifocal		5.2~62.4mm (12x)	2.8~12mm (4.3x) varifocal
Angular Field of View	H: 120° (Wide)~27° (Tele) V: 63° (Wide)~15° (Tele) D: 143° (Wide)~32° (Tele)		H: 55° (Wide)~5° (Tele) V: 63° (Wide)~3° (Tele) D: 62° (Wide)~6° (Tele)	H: 120° (Wide)~27° (Tele) V: 63° (Wide)~15° (Tele) D: 143° (Wide)~32° (Tele)
Pan / Tilt / Rotate	0° ~350° / 0° ~85° / 0° ~340°		—	0° ~360° / 0° ~85° / 0° ~355°
IR Viewable Length	15m(49.21ft), 30m(98.43ft) based on scene	—	WiseIR 90m (295.28ft)	WiseIR 50m (164.04ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	extremeWDR(150dB)			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	Support			
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection Analytics events: Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)			
Business Intelligence	Based on AI engine: People/Vehicle counting		—	Based on AI engine: People/Vehicle counting, Queue management, Heatmap
Alarm I/O	—		2 configurable I/O ports, DC 12V output	
Audio I/O	—		Selectable (mic in/line in) / Line out	Selectable (mic in/line in/built-in mic) / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	Manual, WiseStream III (Based on AI engine)			
Streaming	Up to 10 profiles			
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GBx2)			
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform			
Operating Temperature / Humidity	−50° C~+55° C(−58° F~+131° F) * Start up should be done at above −30° C 0~100%RH(condensing) Humidity control with AIR vent	−40° C~+60° C(−40° F~+140° F) * Start up should be done at above −30° C 0~100%RH(condensing) Humidity control with AIR Vent	−50° C~+60° C(−58° F~+140° F) * Start up should be done at above −30° C 0~100%RH(condensing) Humidity control with AIR vent	−25° C~+50° C(−13° F~+122° F) 0~100%RH(condensing) Humidity control with AIR vent
Certification	IP66, IP67, IP6K9K, NEMA4X, IK10+		IP66, IP67, NEMA4X, IK10	IP66, IP67, IP6K9K, NEMA4X, IK10+ IP52, IK10
Power Consumption	PoE+: Max 22.5W, typical 11.0W		PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover	PoE+: Max. 22.5W, typical 17.9W 12VDC: Max. 20W, typical 15.6W
Product Dimensions / Weight	ø 180x135mm(ø 7.09x5.31"), 2,000g(4.41 lb)	ø 180x135mm(ø 7.09x5.31"), 2,000g(4.41 lb)	ø 93.4x298.4mm(ø 3.68x11.75"), 2,300g(5.07 lb)	ø 180x125mm(ø 7.09x4.92"), 1,900g(4.19 lb) ø 160x125mm(ø 6.30x4.92"), 1,600g(3.53 lb)



XNO-6083R
2MP AI IR Bullet Camera



XNB-A9004
8MP AI Box Camera



XNB-A8004
5MP AI Box Camera

Imaging Device	1/2.8" CMOS	1/1.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	2MP/120fps	8MP/ 30fps	5MP/ 30fps
Min. Illumination	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE),	Colour(1/30sec, 30IRE) 0.04 BW(1/30sec, 30IRE) 0.004	
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.	
Focal Length (Zoom Ratio)	2.8~12mm(4.3x) varifocal	-	
Angular Field of View	H : 120° (Wide) ~ 27° (Tele) V : 63° (Wide) ~ 15° (Tele) D : 143° (Wide) ~ 32° (Tele)	-	
Pan / Tilt / Rotate	0° ~ 360° / 0° ~ 90° / 0° ~ 360°	-	
IR Viewable Length	WiseIR 50m (164.04ft)	-	
Day & Night	Auto(ICR)		
Wide Dynamic Range	150dB	120dB	
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		
Digital Image Stabilization	Support(built-in gyro sensor)	Support	
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection Analytics events: Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)	Classified object type: Person/Face/Vehicle/License plate Attributes: Person (Upper/Lower clothes colour, Gender, Bag) Vehicle (Type(car, bus, truck, motorcycle, bicycle), Colour) Face (Age, Gender, Face mask, Glasses) Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/Apear/Disappear) Analytics events: Defocus detection, Tampering, Fog detection, Audio detection, Shock detection,	
Business Intelligence	Based on AI engine: People/Vehicle counting, Queue management, Heatmap	Based on AI Engine: People counting, Queue management, Heatmap, Vehicle counting, Crowd counting	
Alarm I/O	2 configurable I/O ports, DC 12V output	2 configurable I/O ports	
Audio I/O	Selectable (mic in/line in) / Line out	Selectable(mic in/line in), Built-in mic / Line out	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG	H.265/H.264: Main/Baseline/High, MJPEG	
WiseStream	Manual, WiseStream III (Based on AI engine)	WiseStream(Based on AI engine)	
Streaming	Up to 10 profiles, 3 virtual channel support	Unicast (Up to 20 users) Multicast (Support) Multiple Streaming (Up to 5 profiles, 3 virtual channel support)	
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GBx2)	Micro SD/SDHC/SDXC Max. 1TB x 2slot(Total 2TB)	
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform		
Operating Temperature / Humidity	-50° C ~ +60° C (-58° F ~ +140° F) 74° C (+165° F) (Max) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0~100% RH(condensing) Humidity control with AIR vent	-10° C ~ +55° C (+14° F ~ +131° F) 0~95% RH(non-condensing)	
Certification	IP66, IP67, NEMA4X, IK10	-	
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE: Max. 10.7W, typical 9.5W 12VDC: Max. 9.9W, typical 8.7W	PoE: Max. 8.9W, typical 7.5W 12VDC: Max. 8.1W, typical 6.7W
Product Dimensions / Weight	ø 93.4x298.4mm(ø 3.68x11.75"), 2,200g(4.85 lb)	81(W)x67(H)x165(D)mm (3.19x2.64x6.48"), 851g(1.88lb)	

AI Camera



XNB-A6004
2MP AI Box Camera



XNB-6003
2MP AI Box Camera



XNV-C9083R
8MP AI IR Vandal Dome Camera



XND-C9083RV
8MP AI IR Dome Camera

Imaging Device	1/2.8" CMOS		1/1.8" CMOS	
Resolution / Max. Frame Rate	2MP/ 60fps	2MP/120fps	8MP / 30fps	
Min. Illumination	Colour: 0.02Lux(1/30sec, 30IRE) BW: 0.0002Lux(1/30sec, 30IRE)	Colour: 0.007Lux(F1.2, 1/30sec, 30IRE) BW: 0.0007Lux(F1.2, 1/30sec, 30IRE),	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE),	
Video Out	USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.	CVBS: 1.0 Vp-p / 75Ω composite,720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation	USB: Micro USB Type B	
Focal Length (Zoom Ratio)	-		4.4~9.3mm(2.1x) varifocal	
Angular Field of View	-		H: 113° (Wide)~47° (Tele) V: 58° (Wide)~26° (Tele) D: 138° (Wide)~54° (Tele)	
Pan / Tilt / Rotate	-		0° ~ 360° / 0° ~ 75° / 0° ~ 355°	
IR Viewable Length	-		WiseIR 40m (131.23ft)	
Day & Night	Auto(ICR)			
Wide Dynamic Range	120dB	150dB	120dB	
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V		
Digital Image Stabilization	Support	Support(built-in gyro sensor)		
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Person (Upper/Lower clothes colour, Gender, Bag) Vehicle (Type:car/bus/truck/motorcycle/bicycle) Face (Age, Gender, Face mask, Glasses) Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/ Appear/Disappear) Analytics events: Defocus detection, Tampering, Audio detection, Shock detection	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection Analytics events: Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)		
Business Intelligence	Based on AI Engine: People counting, Queue management, Heatmap, Vehicle counting, Crowd counting	Based on AI engine: People/Vehicle counting, Queue management, Heatmap		
Alarm I/O	2 configurable I/O ports			
Audio I/O	Selectable(mic in/line in), Built-in mic / Line out		Selectable(mic in/line in) / Line out	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	WiseStream(Based on AI engine)	Manual, WiseStream III (Based on AI engine)		
Streaming	Unicast (Up to 20 users) Multicast (Support) Multiple Streaming (Up to 5 profiles, 3 virtual channel support)	Up to 10 profiles, 3 virtual channel support		
Edge Storage	Micro SD/SDHC/SDXC Max. 1TB x 2slot(Total 2TB)	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GBx2)	Micro SD/SDHC/SDXC 1slot Max. 512GB	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GBx2)
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform			
Operating Temperature / Humidity	-10° C~+55° C(+14° F~+131° F) 0~95% RH(non-condensing)	-10° C ~+55° C(-14° F~+131° F) / 0~95% RH(non-condensing)	-40° C ~+55° C(-40° F~+131° F) * Start up should be done at above -20° C 0~100%RH(condensing) Humidity control with AIR vent	-10° C~+50° C(14° F~+122° F) 0~100% RH(condensing) Humidity control with AIR vent
Certification	-		IP66, IP67, NEMA4X, IK10	IP52, IK08
Power Consumption	PoE: Max. 7.5W, typical 6.0W 12VDC: Max. 6.9W, typical 5.6W	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W
Product Dimensions / Weight	81(W)x67(H)x165(D)mm (3.19x2.64x6.48"), 851g(1.88lb)	81(W)x67(H)x165(D)mm(3.19x2.64x6.48"), 880g(1.94 lb)	ø 160 x118mm(ø 6.30x4.65"), 1,450g(3.20 lb)	ø 160x118mm(ø 6.30x4.65"), 1,350g(2.98 lb)

AI Camera



XNO-C9083R
8MP AI IR Bullet Camera



XNV-C8083R
6MP AI IR Vandal Dome Camera



XND-C8083RV
6MP AI Dome Camerav



XNO-C8083R
6MP AI IR Bullet Camera



XNV-C7083R
4MP AI IR Vandal Dome Camera

Imaging Device	1/1.8" CMOS				1/2.8" CMOS
Resolution / Max. Frame Rate	8MP / 30fps		6MP / 30fps		4MP / 60fps
Min. Illumination	Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)		Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)		Colour: 0.038Lux(F1.4, 1/30sec, 30IRE) BW: 0.0038Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle		USB: Micro USB Type B		USB: Micro USB Type B, 1280x720 for installation
Focal Length (Zoom Ratio)	4.4~9.3mm(2.1x) varifocal				2.8~10mm(3.6x) varifocal
Angular Field of View	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)				H: 110° (Wide) ~ 30° (Tele) V: 61° (Wide) ~ 17° (Tele) D: 132° (Wide) ~ 35° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / 0° ~ 90° / 0° ~ 360°	0° ~ 360° / 0° ~ 75° / 0° ~ 355°	0° ~ 360° / 0° ~ 75° / 0° ~ 355°	0° ~ 360° / 0° ~ 90° / 0° ~ 360°	0° ~ 360° / 0° ~ 75° / 0° ~ 355°
IR Viewable Length	WiseIR 40m (131.23ft)				
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V				
Digital Image Stabilization	Support (built-in gyro sensor)				
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection Analytics events: Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)				
Business Intelligence	Based on AI engine: People/Vehicle counting, Queue management, Heatmap				
Alarm I/O	2 configurable I/O ports				
Audio I/O	Selectable(mic in/line in) / Line out				
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG				
WiseStream	Manual(Sea area), WiseStream III (Based on AI engine)				
Streaming	Up to 10 profiles				
Edge Storage	micro SD/SDHC/SDXC Max. 1slot 512GB				
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform				
Operating Temperature / Humidity	-40° C~+55° C(-40° F~+131° F) * Start up should be done at above -20° C 0~100%RH(condensing) Humidity control with AIR vent		-10° C~+50° C(14° F~+122° F) / 0~100% RH(condensing) Humidity control with AIR vent		-40° C~+55° C(-40° F~+131° F) * Start up should be done at above -20° C 0~100%RH(condensing) Humidity control with AIR vent
Certification	IP66, IP67, NEMA4X, IK10	IP66, IP67, NEMA4X, IK10	IP52, IK08	IP66, IP67, NEMA4X, IK10	IP66, IP67, NEMA4X, IK10
Power Consumption	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W				PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W
Product Dimensions / Weight	ø 93.4x276.6mm(ø 3.68x10.89"), 1,640g(3.62 lb)	ø 160x118mm(ø 6.30x4.65"), 1,450g(3.20 lb)	ø 160x118mm(ø 6.30x4.65"), 1,350g(2.98 lb)	ø 93.4x276.6mm(ø 3.68x10.89"), 1,640g(3.62 lb)	ø 160x118mm(ø 6.30x4.65"), 1,450g(3.20 lb)

AI Camera



XND-C7083RV
4MP AI IR Dome Camera



XNO-C7083R
4MP AI IR Bullet Camera



XNV-C6083R
2MP AI IR Vandal Dome Camera



XND-C6083RV
2MP AI Dome Camera



XNO-C6083R
2MP AI IR Bullet Camera

Imaging Device	1/2.8" CMOS		1/2.8" CMOS		1/2.8" CMOS
Resolution / Max. Frame Rate	4MP / 60fps		4MP / 60fps		2MP / 60fps
Min. Illumination	Colour: 0.038Lux(F1.4, 1/30sec, 30IRE) BW: 0.0038Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps		Colour: 0.038Lux(F1.4, 1/30sec, 30IRE) BW: 0.0038Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps		Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps
Video Out	Micro USB Type B		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle		USB: Micro USB Type B
Focal Length (Zoom Ratio)	2.8~10mm(3.6x) varifocal		2.8~10mm(3.6x) varifocal		2.8~12mm(4.3x) varifocal
Angular Field of View	H: 110° (Wide) ~ 30° (Tele) V: 61° (Wide) ~ 17° (Tele) D: 132° (Wide) ~ 35° (Tele)		H: 110° (Wide) ~ 30° (Tele) V: 61° (Wide) ~ 17° (Tele) D: 132° (Wide) ~ 35° (Tele)		H: 120° (Wide) ~ 27° (Tele) V: 63° (Wide) ~ 15° (Tele) D: 143° (Wide) ~ 32° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / 0° ~ 75° / 0° ~ 355°		0° ~ 360° / 0° ~ 90° / 0° ~ 360°		0° ~ 360° / 0° ~ 75° / 0° ~ 355°
IR Viewable Length	WiseIR 40m (131.23ft)				
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB		150dB		
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V				
Digital Image Stabilization	Support (built-in gyro sensor)				
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection Analytics events: Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)				
Business Intelligence	Based on AI engine: People/Vehicle counting, Queue management, Heatmap				
Alarm I/O	2 configurable I/O ports				
Audio I/O	Selectable (mic in/line in) / Line out				
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG				
WiseStream	Manual(Sea area), WiseStream III (Based on AI engine)				
Streaming	Up to 10 profiles,				
Edge Storage	micro SD/SDHC/SDXC 1slot 512GB				
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform				
Operating Temperature / Humidity	-10° C~+50° C(14° F~+122° F) / 0~100% RH(condensing) Humidity control with AIR vent		-40° C~+55° C(-40° F~+131° F) * Start up should be done at above -20° C 0~100%RH(condensing) Humidity control with AIR vent		-10° C~+50° C(14° F~+122° F) 0~100% RH(condensing) Humidity control with AIR vent
Certification	IP52, IK08		IP66, IP67, NEMA4X, IK10		IP52, IK08
Power Consumption	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W		PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W		PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W
Product Dimensions / Weight	ø 160x118mm(ø 6.30x4.65"), 1,350g(2.98 lb)		ø 93.4x276.6mm(ø 3.68x10.89"), 1,640g(3.62 lb)		ø 160x118mm(ø 6.30x4.65"), 1,350g(2.98 lb)
					ø 93.4x276.6mm(ø 3.68x10.89"), 1,640g(3.62 lb)

AI Camera



XNP-C9310R
8MP 31x AI IR PTZ Camera



XNP-C9303RW
8MP 30x AI Wiper IR PTZ Camera



XNP-C9253R
8MP 25x AI IR PTZ Camera



XNP-C9253
8MP 25x AI PTZ Camera



XNP-C8303RW
6MP 30x AI Wiper IR PTZ Camera

Imaging Device	1/1.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	8MP /30fps	8MP / 30fps	8MP / 30fps	8MP / 30fps	6MP / 30fps
Min. Illumination	Colour: 0.06 Lux(F1.36, 1/30sec, 30 IRE) BW: 0.006 Lux(F1.36, IR LED Off), 0Lux (IR LED On)	Colour: 0.1Lux(F1.6, 1/30sec, 30 IRE) BW: 0.01Lux(F1.6, 1/30sec, 30 IRE) 0Lux (IR LED On)	Colour : 0.1Lux (1/30sec, 30IRE) BW : 0.01Lux (1/30sec, 30IRE)		
Video Out	—	—	—	—	—
Focal Length (Zoom Ratio)	6.91 ~ 214.7mm(31x) zoom (digital 32x, total 992x zoom) Support Quick zoom	5 ~150mm(30x) zoom (digital 32x, total 960x zoom)	5 ~125mm(25x) zoom (digital 32x)	5 ~125mm(25x) zoom (digital 32x)	5 ~150mm(30x) zoom (digital 32x)
Angular Field of View	H : 60.6° (Wide) ~ 2.59° (Tele) V : 35.1° (Wide) ~ 1.45° (Tele) D : 68.8° (Wide) ~ 2.97° (Tele)	H: 57.42° (Wide) ~2.19° (Tele) V: 33.54° (Wide) ~1.25° (Tele)	H: 57.42° (Wide) ~2.71° (Tele) V: 33.54° (Wide) ~1.55° (Tele)	H: 57.42° (Wide) ~2.71° (Tele) V: 33.54° (Wide) ~1.55° (Tele)	H: 57.42° (Wide) ~ 2.19° (Tele) V: 33.54° (Wide) ~1.25° (Tele)
Pan / Tilt / Rotate	360° Endless / ~20° ~ 90°				
IR Viewable Length	WiseIR 250m(820ft)	WiseIR 200m (656.17ft)	WiseIR 200m(656.17ft)	—	WiseIR 200m(656.17ft)
Day & Night	Auto(ICR)	Auto(ICR)	Auto (ICR)/Colour/BW/Schedule	Auto (ICR)/Colour/BW/Schedule	Auto (ICR)/Colour/BW/Schedule
Wide Dynamic Range	120dB				
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V				
Digital Image Stabilization	Support(built-in gyro sensor)				
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection Analytics events: Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)				
Business Intelligence	—				
Alarm I/O	Support alarm I/O via optional I/O box				
Audio I/O	Support via optional I/O box				
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG				
WiseStream	Manual, WiseStream III				
Streaming	Up to 10 profiles				
Edge Storage	Micro SD/SDHC/SDXC 2slots 1TB(512GBx2)				
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform				
Operating Temperature / Humidity	-40° C~+55° C(-58° F~+131° F)/ +74° C(165° F)(Max) based on NEMA TS-2(2.2.7) * Start up should be done at above -30° C 0~100%RH(Condensing) Humidity control with AIR vent		-40° C~+55° C(-40° F~+131° F)/ +74° C(165° F)(Max) based on NEMA TS-2(2.2.7)0~90% RH (non-condensing) Humidity control with AIR vent * Start up should be done at above -30° C		-40° C~+55° C(-40° F~+131° F)/ +74° C(165° F)(Max) based on NEMA TS-2(2.2.7) * Start up should be done at above -30° C 0~90%RH(Condensing) Humidity control with AIR vent
Certification	IP66, IP67, IK10, NEMA4X NEMA-TS 2(2.2.7, 2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2 (2.2.7, 2.2.8, 2.2.9)	IP66, IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X		
Power Consumption	Typical 23W, Max 62W	Typical 26W, Max 46W	Typical 24W, Max 40W	Typical 24W, Max 25.5W	Typical 26W, Max 46W
Product Dimensions / Weight	ø 188x264.9mm(ø 7.40x10.47") / 4400g (9.70lb)	ø 184.9x318.8mm(7.28x12.55") / 5,600g (12.34lb)	ø 158x293.3mm(6.22x11.55") / 3,200g(7.05lb)	ø 158x293.3mm(6.22x11.55") / 3,200g(7.05lb)	ø 184.9x318.8mm(7.28x12.55") / 5,600g (12.34lb)

AI Camera

						
	XNP-C8253R 6MP 25x AI IR PTZ Camera	XNP-C8253 6MP 25x AI PTZ Camera	XNP-C7310R 4MP 31x AI IR PTZ Camera	XNP-C6403RW 2MP 40x AI Wiper IR PTZ Camera	XNP-C6403R 2MP 40x AI IR PTZ Camera	XNP-C6403 2MP 40x AI PTZ Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/1.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	6MP / 30fps	6MP / 30fps	4MP / 60fps	2MP / 60fps		
Min. Illumination	Colour : 0.1Lux (1/30sec, 30IRE) BW : 0.01Lux (1/30sec, 30IRE)	Colour : 0.1Lux (1/30sec, 30IRE) BW : 0.01Lux (1/30sec, 30IRE)	Colour : 0.04Lux (1/30sec, 30IRE) BW : 0.004Lux (1/30sec, 30IRE)	Colour : 0.05Lux (1/30sec, 30IRE) BW : 0.005Lux (1/30sec, 30IRE)		
Video Out	-					
Focal Length (Zoom Ratio)	5~125mm(25x) zoom (digital 32x, total 800x zoom)	5~125mm(25x) zoom (digital 32x, total 800x zoom)	6.91 ~ 214.7mm(31x) zoom (digital 32x, total 992x zoom)	4.25~170mm(40x) zoom (digital 32x, total 1280x zoom)		
Angular Field of View	H: 57.42° (Wide) ~ 2.71° (Tele) V: 33.54° (Wide) ~1.55° (Tele)	H: 57.42° (Wide) ~ 2.71° (Tele) V: 33.54° (Wide) ~1.55° (Tele)	H: 59.4° (Wide) ~ 2.54° (Tele) V: 35.8° (Wide) ~ 1.49° (Tele)	H: 65.66° (Wide) ~1.88° (Tele) V: 39.4° (Wide) ~1.09° (Tele)		
Pan / Tilt / Rotate	360° Endless / -20° ~ 90°					
IR Viewable Length	WiseIR 200m(656.17ft)	-	WiseIR 300m(984ft)	WiseIR 200m (656.17ft)	WiseIR 200m (656.17ft)	-
Day & Night	Auto (ICR)/Colour/BW/Schedule					
Wide Dynamic Range	extremeWDR (120dB)			extremeWDR(150dB)		
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V					
Digital Image Stabilization	Support(built-in gyro sensor)					
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection Analytics events: Tampering, Fog detection, Shock detection, Virtual area(Appear/Disappear) * Audio detection, Sound classification(Via optional I/O box SPM-4210)					
Business Intelligence	-					
Alarm I/O	Support alarm I/O via optional I/O box					
Audio I/O	Support via optional I/O box					
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG					
WiseStream	Manual(Sea area), WiseStream III (Based on AI engine)					
Streaming	Up to 10 profiles					
Edge Storage	Micro SD/SDHC/SDXC 2slots 1TB(512GBx2)					
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform					
Operating Temperature / Humidity	-40° C~+55° C(-40° F~+131° F) +74° C(+165° F)(Max) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0~100% RH(condensing) Humidity control with AIR vent					
Certification	IP66, IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X		IP66, IP67, IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250type 4X	IP66, IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X		
Power Consumption	Typical 24W, Max 40W	Typical 24W, Max 25.5W	Typical 23W, Max 62W	Typical 26W, Max 46W	Typical 24W, Max 40W	Typical 24W, Max 25.5W
Product Dimensions / Weight	ø 158x293.3mm(6.22x11.55") / 3,200g(7.05lb)	ø 158x293.3mm(6.22x11.55") / 3,200g(7.05lb)	ø 188x264.9mm(ø 7.40x10.47") / 4,400g (9.70lb)	ø 184.9x318.8mm(7.28x12.55") / 5,600g (12.34lb)	ø 158x293.3mm(6.22x11.55") / 3,200g(7.05lb)	ø 158x293.3mm (6.22x11.55") / 3,200g (7.05lb)

AI Camera

				
PNV-A9082RZ 8MP AI IR PTRZ Vandal Camera	PND-A9082RV 8MP AI IR Dome Camera	PNO-A9092R 8MP AI IR Bullet Camera	PNO-A9082R 8MP AI IR Bullet Camera	PNV-A7082RZ 4MP AI IR PTRZ Vandal Camera
Imaging Device	1/1.2" CMOS			1/1.8" CMOS
Resolution / Max. Frame Rate	8MP/ 30fps			4MP/ 60fps
Min. Illumination	Colour: 0.015Lux(1/30sec, 30IRE), BW: 0.0015Lux(1/30sec, 30IRE)		Colour: 0.03Lux(F1.67, 1/30sec, 30IRE), BW: 0.003Lux(F1.67, 1/30sec, 30IRE)	
Video Out	USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.			-
Focal Length (Zoom Ratio)	5.9~13.3mm(2.25x) motorized varifocal		15~50mm(3.33x) motorized varifocal	5.9~13.3mm(2.25x) motorized varifocal
Angular Field of View	H: 109° (Wide) ~ 49° (Tele) V: 59° (Wide) ~ 27° (Tele) D: 128° (Wide) ~ 56° (Tele)		H: 42.7° (Wide) ~ 12.6° (Tele) V: 24.1° (Wide) ~ 7.2° (Tele) D: 49° (Wide) ~ 14.3° (Tele)	H: 109° (Wide) ~ 49° (Tele) V: 59° (Wide) ~ 27° (Tele) D: 128° (Wide) ~ 56° (Tele)
Pan / Tilt / Rotate Range	Remote adjustment(Max. 3,650cycles) 0° ~ 350° / -45° ~ 85° / -95° ~ 95°		0° ~ 360° / 0° ~ 90° / 0° ~ 180°	
IR Viewable Length	WiseIR 50m(164.04ft)		WiseIR 120m(393.7ft)	WiseIR 60m(196.85ft)
Day & Night	Auto(ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	Support			
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Person(Gender, Clothing top/bottom colour, Bag), Face(Age, Gender, Mask, Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle, Colour) Support BestShot, Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Slip & fall detection, Face mask detection, Social distancing detection, Analytics events: Defocus detection, Tampering, Shock detection, Audio detection			
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap			
Alarm I/O	- / Support extra alarm I/O via optional I/O box	2 configurable I/O ports, DC 12V output(Max. 50mA)		- / -
Audio I/O	- / -	Selectable(mic in/line in/built-in 3mics)/ Line out	Selectable(mic in/line in)/Line Out	Selectable(mic in/line in)/Line Out
Video Compression	H.265/H.264: Main/Baseline/High MJPEG			
WiseStream	WiseStream(Based on AI engine)			
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 5 profiles, 3 virtual channel support)			
Edge Storage	Micro SD/SDHC/SDXC 2slots Max. 1TB x 2slots(Total 2TB)			
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform			
Operating Temperature / Humidity	-50° C ~ +55° C(-58° F ~ +131° F) / 0~100% RH(Condensing) +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C Humidity control with AIR vent	-25° C ~ +50° C(-13° F ~ +122° F) / 0~100% RH(Condensing) Humidity control with AIR vent	-50° C ~ +55° C(-58° F ~ +131° F) / 0~100% RH(Condensing) +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C Humidity control with AIR vent	
Certification	IP66, IP67, IP6K9K, NEMA4X, IK11, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)		IP66, IP67, NEMA4X, IK10, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)	
Power Consumption	PoE: Max. 17.5W, typical 11.0W	PoE: Max. 19.2W, typical 11.0W 12VDC: Max. 16.5W, typical 9.5W	PoE: Max. 19.2W, typical 11.0W, 12VDC: Max. 16.5W, typical 9.5W - power redundancy failover support	
Product Dimensions / Weight	ø 180x135mm(ø 7.09x5.31"), 2,100g(4.63lb)	ø 160x125mm(ø 6.30x4.92"), 1,550g(3.42lb)	ø 93.4x298.4mm(ø 3.68x11.75"), 2,180g(4.81lb)	ø 93.4x298.4mm(ø 3.68x11.75"), 2,060g(4.54lb)
	ø 180x135mm(ø 7.09x5.31"), 2,100g(4.63lb)			

AI Camera



PND-A7082RV
4MP AI IR Dome Camera



PNO-A7082R
4MP AI IR Bullet Camera



PNO-A9081R
8MP AI IR Bullet Camera



PNV-A9081R
8MP AI IR Vandal Dome Camera



PND-A9081RV
8MP AI IR Dome Camera

Imaging Device			1/1.8" CMOS	
Resolution / Max. Frame Rate	4MP/60fps		8MP / 30fps	
Min. Illumination	Colour: 0.03Lux(F1.3, 1/30sec, 30IRE), BW: 0.001Lux(F1.3, 1/30sec, 30IRE)		Colour: 0.05Lux(F1.6, 1/30sec), BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	
Video Out	USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.		CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	
Focal Length (Zoom Ratio)	4.6~9.35mm(2.0x) motorized varifocal		4.5 ~10mm(2.2x) motorized varifocal	
Angular Field of View	H: 105° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 27° (Tele) D: 128° (Wide) ~ 55° (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 Range	0° ~ 360° / 0° ~ 85° / 0° ~ 355°	0° ~ 360° / 0° ~ 90° / 0° ~ 180°	–	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	WiseIR 60m(196.85ft)		WiseIR 30m(98.42ft)	WiseIR 30m(98.42ft)
Day & Night	Auto(ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	Support			
Analytics	Classified object type: Person/Face/Vehicle / License plate Attributes: Person(Gender, Clothing top/bottom colour, Bag), Face(Age, Gender, Mask, Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle, Colour) Support BestShot, Analytics events based on AI engine: Motion detection, Object detection, Virtual line (Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Slip & fall detection, Face mask detection, Social distancing detection, Analytics events: Defocus detection, Tampering, Shock detection, Audio detection		Classified object type: Person/Face/Vehicle/License plate Attributes: Person(Gender/Colour/Bag), Face(Age/Gender/Mask/Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Colour) Support BestShot per object Analytics events based on AI engine: Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip&Fall detection Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) Support WiseDetector for Adding custom objects	
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap		People/Vehicle/Crowd counting, Queue management, Heatmap based on AI engine	
Alarm I/O	2 configurable I/O ports, DC 12V output(Max. 50mA)			
Audio I/O	Selectable(mic in/line in/built-in 3mics)/ Line out	Selectable(mic in/line in)/ Line out *Support extra alarm I/O via optional I/O box	Selectable (mic in/line in) / line out	Selectable (mic in/line in/built-in-mic) / line out
Video Compression	H.265/H.264: Main/High, MJPEG			
WiseStream	WiseStream(Based on AI engine)		Manual, WiseStream III	
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 5 profiles, 3 virtual channel support)		Unicast(6 users) / Multicast Multiple streaming(up to 6 profiles)	
Edge Storage	Micro SD/SDHC/SDXC Max. 1TB x 2slot(Total 2TB)		Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)	
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform		ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform – WiseAI application included(Analytic based on AI, Business intelligence)	
Operating Temperature / Humidity	-25° C ~ +50° C (-13° F ~ +122° F) 0~100% RH(Condensing) Humidity control with AIR vent	-50° C ~ +55° C (-58° F ~ +131° F) 0~100% RH(Condensing) +74° C(+165° F) (MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C Humidity control with AIR vent	-50° C ~ +55° C (-58° F ~ +131° F) / 0~90%RH(Non-condensing) * Start up should be done at above -30° C	-50° C ~ +55° C (-58° F ~ +131° F) / 0~90%RH(Non-condensing) * Start up should be done at above -30° C
Certification	IP52, IK10	IP66, IP67, NEMA4X, IK10, NEMA-TS 2(2.2.7.2-8, 2.2.8, 2.2.9)	IP66, IP67, IK10, NEMA4X	IP66, IP67, IP6K9K, IK10+, NEMA4X
Power Consumption	PoE: Max. 15.0W, typical 9.0W, 12VDC: Max. 12.7W, typical 7.8W – Power Redundance Failover Support		PoE+: Max 20.0W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W – Power Redundance Failover support	PoE+: Max 20.00W, typical 17.00W 12VDC: Max 18.70W, typical 15.00W
Product Dimensions / Weight	ø 160x125mm(ø 6.30x4.92"), 1,550g(3.42lb)	ø 93.4x298.4mm(ø 3.68x11.75"), 2,060g(4.54lb)	ø 91.0x368.6mm (3.58" x 14.51") (Without sunshield), 2,480g (5.47lb)	ø 180x125mm(7.09x4.92"), 1,900g (4.19lb)

AI Camera



PNO-A9311R
8MP AI IR Bullet Camera



PND-A9081RF
8MP AI IR Dome Camera



PNO-A6081R
2MP AI IR Bullet Camera



PNV-A6081R
2MP AI IR Vandal Dome Camera



PND-A6081RV
2MP AI IR Dome Camera



PND-A6081RF
2MP AI IR Dome Camera

Imaging Device	1/1.8" CMOS		1/2" CMOS		
Resolution / Max. Frame Rate	4K / 30fps		2MP / 120fps		
Min. Illumination	Colour : 0.075Lux (1/30sec, 30IRE) BW : 0.0075Lux (1/30sec, 30IRE)	Colour : 0.05Lux (1/30sec, 30IRE) BW : 0.005Lux (1/30sec, 30IRE)	Colour : 0.007Lux (1/30sec, 30IRE) BW : 0.0007Lux (1/30sec, 30IRE)		
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation. USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.				
Focal Length (Zoom Ratio)	6.91~214.7mm (31x) varifocal	4.5~10mm(2.2x) varifocal	4.38~9.33mm(2.13x) varifocal		
Angular Field of View	H: 60.92° (Wide) ~2.2° (Tele) V: 35.26° (Wide) ~1.24° (Tele) D: 69.18° (Wide) ~2.52° (Tele)	H: 101.4° (Wide) ~ 45.5° (Tele) V: 53.6° (Wide) ~ 25.5° (Tele) D: 120.7° (Wide) ~ 52.3° (Tele)	H: 103.1° (Wide) ~ 44.5° (Tele) V: 54.2° (Wide) ~ 24.9° (Tele) D: 124° (Wide) ~ 51.1° (Tele)		
Pan / Tilt / Rotate	–	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	–	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	
IR Viewable Length	WiseIR 70m(229.66ft)	WiseIR 30m(98.42ft)	WiseIR 40m(131.23ft)		
Day & Night	Auto(ICR)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V				
Digital Image Stabilization	Support				
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Person(Gender, Colour and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Colour) Support BestShot per object Analytics events based on AI engine : Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip&Fall detection Analytics events : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) Support WiseDetector for Adding custom objects *Some of the video analytics only works with people and vehicle detection				
Business Intelligence	People/Vehicle/Crowd counting, Queue management, Heatmap based on AI engine				
Alarm I/O	2 configurable I/O ports, DC 12V output(Max. 50mA)				
Audio I/O	Selectable(mic in/line in) / Line out			Selectable (mic in/line in/built-in mic) line out	Selectable (mic in/line in) / line out
Video Compression	H.265/H.264: Main/High, MJPEG				
WiseStream	Manual(Sea area), WiseStream II , WiseStream III (using AI engine)				
Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)				
Edge Storage	Micro SD/SDHC/SDXC 2slots 512GB				
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform – WiseAI application included(Analytic based on AI, Business intelligence)				
Operating Temperature / Humidity	-40° C ~ +55° C (-40° F ~ +131° F) / 0~100% RH(condensing) , Humidity control /with AIR vent * Start up should be done at above -30° C	-25° C ~ +50° C (-13° F ~ +122° F) 0~90%RH(Non-condensing)	-50° C ~ +55° C (-58° F ~ +131° F) / 0~90%RH(Non-condensing) * Start up should be done at above -30° C		-25° C ~ +50° C (-13° F ~ +122° F) / 0~90%RH(Non-condensing)
Certification	IP66, IP67	IP52, IK 10, Plenum rate	IP66, IP67, IK 10, NEMA 250 type 4X	IP66, IP67, IP6K9K, IK 10+, NEMA 250 type 4X	IP52, IK 10
Power Consumption	PoE+: Max 25.5W, typical 14.0W 12VDC: Max 24.0W, typical 12.7.W	PoE+: Max 20.00W, typical 16.00W 12VDC: Max 17.70W, typical 14.00W	PoE+: Max 19.50W, typical 16.00W 12VDC: Max 17.00W, typical 13.50W		
Product Dimensions / Weight	ø 136.2x358.7mm(ø 5.36x14.12") (Without sunshield), 3,200g(7.05lb) * backbox: ø 160mm(ø 6.30")	ø 205x163mm(8.07x4.92"), 1,950g (4.30lb)	ø 91.0x368.6mm (3.58" x 14.51") (Without sunshield), 2,480g (5.47lb)	ø 180x125mm(7.09x4.92"), 1,900g (4.19lb)	ø 160x125mm(6.30x4.92"), 1,600g (3.53lb)
	ø 205x163mm(8.07x4.92"), 1,950g (4.30lb)				

AI Camera



PNB-A9092
8MP AI Box Camera with Integrated Lens



PNB-A9082
8MP AI Box Camera with Integrated Lens



PNM-C34404RQPZ
8MP 4CH PTRZ + 2MP 40x PTZ AI Camera

Imaging Device	1/1.2" CMOS		1/2.8" CMOS x 4CH	1/2.8" CMOS x 1CH PTZ
Resolution / Max. Frame Rate	8MP / 30fps		8MP/20fps	2MP / 60fps
Min. Illumination	Colour: 0.015Lux(F1.2, 1/30sec) B/W : 0.0015Lux(F1.2, 1/30sec)		Colour: 0.1Lux(F1.5, 1/30sec, 30IRE) BW: 0.01Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)	
Video Out	USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.		-	-
Focal Length (Zoom Ratio)	15~50mm(3.33x) motorized varifocal	5.9~13.3mm(2.25x) motorized varifocal	3.3~5.7mm(1.7x)	4.25~170mm(40x)(digital 32x)
Angular Field of View	H: 42.7° (Wide) ~12.6° (Tele) V: 24.1° (Wide) ~ 7.2° (Tele) D: 49° (Wide) ~14.3° (Tele)	H: 109° (Wide) ~ 49° (Tele) V: 59° (Wide) ~ 27° (Tele) D: 128° (Wide) ~ 56° (Tele)	H: 109° (Wide)~56° (Tele) V: 55° (Wide)~31° (Tele) D: 136° (Wide)~65° (Tele)	H: 65.66° (Wide)~1.88° (Tele) V: 39.40° (Wide)~1.09° (Tele)
Pan / Tilt / Rotate	-		0° ~ 360° / 9° ~ 65° / 0° ~90° * Tilt angle with Shield IR: 40° ~65°	0° ~360° / 0° ~ 110°
IR Viewable Length	-		20m (65.62ft)	WiselR 200m (656.17ft)
Day & Night	Auto(ICR)		Auto (ICR)	
Wide Dynamic Range	120dB		120dB	150dB
Digital Noise Reduction	SSNR V , WiseNR II (Based on AI engine)		WiseNR II (Based on AI engine), SSNR V	
Digital Image Stabilization	Support		-	Support
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Person(Gender, Clothing top/bottom colour, Bag), Face(Age, Gender, Mask, Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle, Colour) Support BestShot, Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/ Appear/Disappear), Slip & fall detection, Face mask detection, Social distancing detection, Analytics events: Defocus detection, Tampering, Audio detection, Shock detection, Virtual area(Appear/Disappear)		Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(car/bus/truck/motorcycle/bicycle) Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Motion detection, Tampering, Virtual area(Appear/Disappear)	Analytics events: Motion detection, Fog detection, Tampering, Virtual area(Loitering/ Intrusion/Enter/Exit/ Appear/Disappear), Virtual line(Crossing/Direction) Support Audio detection, Sound classification via optional I/O box(SPM-4210)
Business Intelligence	Based on AI engine: People/ Vehicle/Crowd counting, Queue management, Heatmap		-	
Alarm I/O	2 configurable I/O ports / 12VDC output	2 configurable I/O ports, DC 12V output(Max. 50mA) *Support extra alarm I/O via optional I/O box	-	
Audio I/O	Selectable(mic in/line in/built-in mic)/ Line out		-	
Video Compression	H.265/H.264: Main/Baseline/High MJPEG		H.265/H.264, MJPEG	
WiseStream	WiseStream(Based on AI engine)		Manual, WiseStream III	
Streaming	Unicast(20 users) / Multicast, Multiple streaming (Up to 5 profiles, 3 virtual channel support)		Unicast(10 users) / Multicast Multiple streaming (Up to 3 profiles)	Unicast(20 users) / Multicast Multiple streaming (Up to 10 profiles)
Edge Storage	Micro SD/SDHC/SDXC 2slots Max. 1TB x 2slots(Total 2TB)		Micro SD/SDHC/SDXC 2slot 1TB(512GBx2)	
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform		ONVIF Profile S/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform	
Operating Temperature / Humidity	-10° C ~ +55° C(14° F ~ +131° F) / 0~95% RH(non~condensing)		-40° C ~ +50° C(-40° F ~ +122° F) +74° C(+165° F)(MAX) based on NEMA-2S(2.2.7) * Start up should be done at above -30° C. 0~95% RH(non~condensing)	
Certification	-		IP66, IK10, NEMA 250 type 4X	
Power Consumption	PoE: Max. 13.6W, typical 12.7W, 12VDC: Max. 11.5W, typical 10.9W, - Power Redundance Failover Support		HPoE: Max 64.00W, typical 45.00W	
Product Dimensions / Weight	82(W)x76(H)x190(D)mm(3.23x2.99x7.48"), 1,020g(2.25lb)	82(W)x76(H)x190(D)mm(3.23x2.99x7.48"), 900g(1.98lb)	ø 140x110.2mm(ø 5.51x4.34"), 875g(1.93 lb)	

AI Camera



PNM-C19183RVTP
3CH + 1CH PTZ AI Camera



PNM-C32083RQZ
8MP x 4CH AI PTRZ
Multi-directional Camera



PNM-C16083RQZ
4MP x 4CH AI PTRZ
Multi-directional Camera

Imaging Device	1/2.8" CMOS x 3CH	1/2.8" CMOS x 1 PTZ	1/1.8" CMOS x 4CH	1/2.8" CMOS x 4CH
Resolution / Max. Frame Rate	5MP/30fps	4MP/30fps	8MP / 20fps	4MP / 30fps
Min. Illumination	Colour: 0.08Lux(F2.0, 1/30sec, 30IRE) BW: 0.008Lux(F2.0, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.05Lux(F2.0, 1/30sec, 30IRE) BW: 0.005Lux(F2.0, 1/30sec, 30IRE)	Colour: 0.07Lux(F1.3, 1/30sec, 30IRE) BW: 0Lux(IR LED on)	Colour: 0.1Lux(F1.6, 1/30sec, 30IRE) BW: 0.01Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	USB: Micro USB Type C for installation		-	
Focal Length (Zoom Ratio)	2.4mm fixed focal	5.42~98.29mm(18x) (digital 32x, total 576x)	4.38~9.33mm(2.1x) motorized varifocal	3.2~10.2mm(3.2x) motorized varifocal
Angular Field of View	H: 123° / V: 91° / D: 159°	H: 53.1° (Wide) ~ 3.39° (Tele) V: 31.75° (Wide) ~ 1.98° (Tele) D: 60.8° (Wide) ~ 3.92° (Tele)	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)	H: 93° (Wide) ~ 29° (Tele) V: 53° (Wide) ~17° (Tele) D: 111° (Wide) ~ 34° (Tele)
Pan / Tilt / Rotate	-		Remote adjustment(Max. 200cycles) 0° ~ 360° / 30° ~ 90° / 0° ~ 90°	
IR Viewable Length	15m(49.21ft), 10m(32.8ft) under 3m height installation	-	WiseIR: PoE++ 25m(82.02ft) / PoE+ 15m(49.21ft)	WiseIR: PoE++ 20m(65.62ft) / PoE+ 15m(49.21ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	-	Support	-	
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle type(car, bus, truck, motorcycle, bicycle), Vehicle Colour, Person (Clothing top/bottom colour) Support BestShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion detection Analytics events: Tampering, Virtual area(Appear/Disappear) *Audio detection via optional I/O box	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle type(car, bus, truck, motorcycle, bicycle), Vehicle Colour Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion detection Analytics events: Tampering, Virtual area(Appear/Disappear), Fog detection *Audio detection via optional I/O box	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle type (car/bus/truck/motorcycle/bicycle, Colour), Person (Upper/Lower clothes colour) Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics Events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)	
Business Intelligence	Based on AI engine: People/Vehicle counting, Queue management, Heatmap	-		
Alarm I/O	Support alarm I/O via optional I/O box		2 configurable I/O ports *Support extra alarm I/O via optional I/O box	
Audio I/O	Support via optional I/O box			
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		H.265/H.264: Main/High, MJPEG	
WiseStream	Manual(Sea area), WiseStream (Based on AI engine)	Manual(Sea area), WiseStream II	Manual(Sea area), WiseStream III (Based on AI engine)	
Streaming	Unicast(5 users per channel)/ Multicast/Multiple streaming (Up to 4 profiles per channel)	Unicast(5 users) / Multicast / Multiple streaming (Up to 3 profiles)	Unicast(10 users) / Multicast Multiple streaming(Up to 3 profiles per channel)	
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 2TB(1TBx2)		Micro SD/SDHC/SDXC 2slot Max. 2TB(1TBx2)	Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)
Application Programming Interface	ONVIF Profile S/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform			
Operating Temperature / Humidity	-40° C~+55° C(-40° F~+131° F) * Start up should be done at above -35° C. 0~100% RH(condensing), Humidity control with AIR vent			
Certification	IP66, IK10, NEMA 250 type 4X		IP66, IK10, NEMA4X	
Power Consumption	PoE++: Max 42W		PoE Max. 41W, typical 22W, PoE+: Max. 25.5W, typical 22W	
Product Dimensions / Weight	ø 251.4x212mm(ø 9.9x8.35"), 4,800g(10.58lb)		ø 312.7x145.9mm(ø 12.31x5.74"), 4,400g(9.7lb)	

AI Camera

32



PNM-C32083RVQ
4MP x 4ch AI Camera



PNM-C16083RVQ
4MP x 4ch AI Camera



PNM-C16013RVQ
4MP x 4CH AI Multi-directional Camera



PNM-C12083RVD
6MP x 2CH AI Multi-directional Camera

Imaging Device	1/2.8" CMOS x 4CH			1/2.8" CMOS x 2CH
Resolution / Max. Frame Rate	[AI On] 8MP Max, 15fps [AI Off] 8MP Max 20fps	4MP / 30fps	4MP/15fps	6MP / 15fps
Min. Illumination	Colour: 0.1Lux(F1.5, 1/30sec, 30IRE) BW: 0.01Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.075Lux(F1.5, 1/30sec, 30IRE) BW: 0.0075Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.16lux(F1.67, 1/30sec, 30IRE) BW: 0.016lux(F1.67, 1/30sec, 30IRE), 0lux(IR LED on)
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.			
Focal Length (Zoom Ratio)	3.3~5.7mm(1.7x)		3.19mm	3.54~6.69mm(1.9x)
Angular Field of View	H: 109° (Wide) ~ 56° (Tele) V: 55° (Wide) ~ 31° (Tele) D: 136° (Wide) ~ 65° (Tele)	H: 100° (Wide) ~ 53° (Tele) V: 54° (Wide) ~ 30° (Tele) D: 125° (Wide) ~ 61° (Tele)	H: 97° / V: 54° / D: 116°	H: 96° (Wide) ~ 47° (Tele) V: 51° (Wide) ~ 26° (Tele) D: 113° (Wide) ~ 54° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / 0° ~ 65° / 0° ~ 90°		0 ~ 360° (100° per CH) / 0 ~ 75° / 0 ~ 90°	0° ~ 355° / 0° ~ 78° / 0° ~ 180°
IR Viewable Length	WiseIR 15m(49.21ft)		20m(65.62ft)	15m(49ft), 25m(82ft) based on scene
Day & Night	Auto(ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	-			
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(car/bus/truck/ motorcycle/bicycle) Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/ Intrusion/Enter/Exit) Analytics events: Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(car/bus/truck/ motorcycle/bicycle) Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/ Intrusion/Enter/Exit) Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Car/Bus/Truck/Motorcycle/Bicycle) Support Detection shot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(car/bus/truck/motorcycle/bicycle) Support BestShot Analytics events based on AI engine: Object detection Virtual line(Crossing/Direction), Virtual area(Loitering/ Intrusion/Enter/Exit) Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)
Business Intelligence	-			
Alarm I/O	2 configurable I/O ports * Support extra alarm I/O via optional SPM-4210 I/O box		* Support extra alarm I/O via optional SPM-4210 I/O box	Support Alarm via optional SPM-4210 I/O box
Audio I/O	Selectable(mic in/line in) / Line out		Support via optional I/O box	Support via optional I/O box
Video Compression	H.265/H.264: Main/High, MJPEG		H.265/H.264: Main/Baseline/High, MJPEG	
WiseStream	Manual, WiseStream III			
Streaming	Up to 3 profiles per channel		Up to 4 profiles per channel	Unicast (10 users) / Multicast, 5 profiles per channel
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 1TB(512GBx2)			micro SD/SDHC/SDXC 1slot Max. 512GB
Application Programming Interface	ONVIF Profile S/G/T/M , SUNAPI(HTTP API), Hanwha Vision Open Platform		ONVIF Profile S/T/M , SUNAPI(HTTP API), Hanwha Vision Open Platform	ONVIF Profile S/T, SUNAPI(HTTP API) Hanwha Vision Open Platform
Operating Temperature / Humidity	-40° C ~ +55° C (-40° F ~ +131° F) * Start up should be done at above -35° C. 0~90% RH(non-condensing)			-40° C ~ +55° C (-40° F ~ +131° F) / 0~95% RH(non-condensing)
Certification	IP66, IK10, NEMA 250 type 4X		IP66, IK10, NEMA 250 type 4X	IP66, IK09, NEMA 250 type 4X
Power Consumption	PoE+: Max 25.5W, typical 22.0W		Max. 23.5W, typical 13W	PoE+: Max 21W, typical 16.5W
Product Dimensions / Weight	ø 250x114.2mm(ø 9.84x4.50"), 2,820g(6.22 lb)	ø 250x114.2mm(ø 9.84x4.50"), 2,730g(6.02 lb)	ø 200x80mm(ø 7.87x3.15"), 1,380g(3.04 lb)	215(W)x135(D)x93.2(H)mm(8.46"x5.31"x3.67"), 1,330g

AI Camera

33



PNM-C7083RVD
2MP x 2CH AI Multi-directional Camera



PNM-A13022RV
13MP AI IR Panoramic Camera



PNM-C9022RV
8MP AI Panoramic Camera

Imaging Device	1/2.8" CMOS x 2CH		1/2.8" CMOS	1/2.8" CMOS x 4CH
Resolution / Max. Frame Rate	2MP / 30fps		30fps	2MP / 20fps x 4CH
Min. Illumination	Colour: 0.035lux(F2.2, 1/30sec, 30IRE) BW: 0.0035lux(F2.2, 1/30sec, 30IRE), 0lux(IR LED on)		Colour(1/30sec, 30IRE): 0.1 BW(1/30sec, 30IRE): 0.01	Colour: 0.1(1/30sec, 30IRE) BW: 0.01(1/30sec, 30IRE)
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle.	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.
Focal Length (Zoom Ratio)	3~6mm(2x)		3.06mm	2.8mm
Angular Field of View	H: 107° (Wide) ~ 56° (Tele) V: 57° (Wide) ~ 31° (Tele) D: 126° (Wide) ~ 64° (Tele)		H: 194° / V: 93°	H: 209° / V: 60°
Pan / Tilt / Rotate	0° ~ 355° / 0° ~ 78° / 0° ~ 180°		0° ~ 360° / 0° ~ 50°	0° ~ 360° / 0° ~ 65° / -
IR Viewable Length	15m(49ft), 25m(82ft) based on scene		20m(65.62ft) 4 individual zones with Automatic/Manual level adjustment	20m (65.62ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	-			
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(car/bus/truck/motorcycle/bicycle) Support BestShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)		Classified object type: Person/Face/Vehicle/License plate Attributes: Person(Upper/Lower clothes colour, Gender, Bag), Vehicle(Type(car, bus, truck, motorcycle, bicycle), Colour), Face(Age, Gender, Face mask, Glasses) Support BestShot per object Analytics events based on AI engine: Object detection, Virtual line(Crossing/ Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/ Disappear)	Classified object type: Person, Vehicle Attributes: Vehicle(Type: car/bus/truck/motorcycle/bicycle) Support BestShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)
Business Intelligence	-		Based on AI Engine: People counting, Queue management, Heatmap, Vehicle counting, Crowd counting	-
Alarm I/O	Support Alarm via optional SPM-4210 I/O box		2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Support via optional I/O box		Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			H.265 / H.264, MJPEG
WiseStream	Manual, WiseStream III		Manual, WiseStream(Based on AI engine)	Manual, WiseStream III
Streaming	Unicast (10 users) / Multicast, 5 profiles per channel		Unicast(Up to 20 users) / Multicast(Support) / Multiple streaming (Up to 4 profiles, 3 virtual channel support)	Unicast(20 users) / Multicast, Multiple streaming (Up to 3 profiles, 2 virtual channel support)
Edge Storage	micro SD/SDHC/SDXC 1slot Max. 512GB		Micro SD/SDHC/SDXC Max. 1TB x 2slot(Total 2TB)	micro SD/SDHC/SDXC 2slot Max. 1TB(512GB * 2)
Application Programming Interface	ONVIF Profile S/T, SUNAPI(HTTP API) Hanuha Vision Open Platform		ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanuha Vision Open Platform	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanuha Vision Open Platform
Operating Temperature / Humidity	-40° C ~ +55° C (-40° F ~ +131° F) / 0~95% RH(non-condensing)		-40° C ~ +55° C (-40° F ~ +131° F) / 0~100%RH(Condensing)	-40° C ~ +55° C (-40° F ~ +131° F) / 0~95% RH(non-condensing)
Certification	IP66, IK09, NEMA 250 type 4X		IP66, IK10, NEMA 250 type 4X	IP66, IK10, NEMA 250 type 4X
Power Consumption	PoE+: Max 20W, typical 15.5W		PoE+: Max 22.3W, typical 11.5W 12VDC: Max 22.0W, typical 10.4W Power redundancy failover	PoE+: Max 24.5W, typical 11.3W 12VDC: Max 22.0W, typical 10.4W Power redundancy failover
Product Dimensions / Weight	215(W)x135(D)x93.2(H)mm(8.46"x5.31"x3.67"), 1,330g		ø 253x170mm(9.96"x6.69"), 2,800g(6.17lb)	ø 253x170mm(9.96"x6.69"), 2,900g(6.39lb)



PNM-C2000QB
2MP & 5MP AI Remote Head Camera



SLA-F4780A
5MP Lens Module



SLA-F4780VA
5MP Lens Module



SLA-F2480A
5MP Lens Module



SLA-F2480VA
5MP Lens Module



SLA-F2480WA
5MP Waterproof Lens Module

Imaging Device	–		1/2.8" CMOS		
Resolution / Max. Frame Rate	2MP & 5MP/ 30fps		5MP		
Min. Illumination	–		Colour: 0.09Lux(F1.3, 1/30sec, 30IRE) BW: 0.09Lux(F1.3, 1/30sec, 30IRE)	Colour: 0.08Lux(F1.3, 1/30sec, 30IRE) BW: 0.08Lux(F1.3, 1/30sec, 30IRE)	Colour: 0.1Lux(F1.3, 1/30sec, 30IRE) BW: 0.1Lux(F1.3, 1/30sec, 30IRE)
Video Out	USB: USB Type C. Preview and installation ONLY. Requires WiFi dongle., HDMI(Single/Quad view)				
Focal Length (Zoom Ratio)	–		4.72mm	2.45mm	2.4mm
Angular Field of View	–		70° / 50° / 96°	122° / 90° / 158°	128° / 92° / 172°
Pan / Tilt / Rotate	–				
IR Viewable Length	–				
Day & Night	Auto(Electrical)		–		
Wide Dynamic Range	120dB		–		
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		–		
Digital Image Stabilization	Support		–		
Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Person(Gender /Colour/Bag), Face(Age/ Gender/Mask/Glasses), Vehicle(car/bus/truck/ motorcycle/bicycle and Colour) Support BestShot per object Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/ Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip&Fall detection Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)		–		
Business Intelligence	People/Vehicle/Crowd counting, Queue management, Heatmap based on AI engine		–		
Alarm I/O	4 configurable I/O ports		–		
Audio I/O	4 x Selectable(mic in/line in) / Line out		–		
Video Compression	H.265 / H.264, MJPEG		–		
WiseStream	WiseStream(Based on AI engine)		–		
Streaming	Unicast(20 users) / Multicast, Multiple streaming (Up to 4 profiles)		–		
Edge Storage	Micro SD/SDHC/SDXC Max. 1TB x 2slot(Total 2TB)		–		
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform – WiseAI application included(Analytic based on AI, Business intelligence)		–		
Operating Temperature / Humidity	–10° C ~+55° C(+14° F ~+131° F) / 0~95% RH(non-condensing)		–10° C ~+55° C(+14° F ~+131° F) 0~95% RH		–30° C ~+55° C(–22° F ~+131° F) 0~95% RH
Certification	IEC/EN 63000		–		IP66, NEMA 250 type 4X
Power Consumption	PoE+: Max 25.5W, Typ 23.8W/ 12VDC: Max 23.1W, Typ 21.5W		–		
Product Dimensions / Weight	200(W)x37(H)x146(D)mm(7.87x1.46x5.75")		ø 24x44.9mm(ø 0.94x1.77"), Cable: 8m(26.2ft) 34.2g(0.08lb), Cable: 350g(0.77lb)	30(W)x20.5(H)x45(D)mm (1.18x0.81x1.77"), Cable: 8m(26.2ft), 44.4g(0.1lb), Cable: 350g(0.77lb)	ø 24x46.6mm(ø 0.94x1.83"), Cable: 8m(26.2ft) 35g(0.08lb), Cable: 350g(0.77lb) 46.1g(0.1lb), Cable: 350g(0.77lb)



SLA-F1080FA
5MP Lens Module



SLA-F2480WDA
5MP Waterproof Dome Lens Module



QNV-C9083R
8MP AI IR Vandal Dome Camera



QNV-C8083R
5MP AI IR Vandal Dome Camera



QNV-C6083R
2MP AI IR Vandal Dome Camera

Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	5MP		8MP / 30fps	5MP / 30fps
Min. Illumination	Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.05Lux(F1.6, 1/30sec, 30IRE)	Colour: 0.08Lux(F1.3, 1/30sec, 30IRE) BW: 0.08Lux(F1.3, 1/30sec, 30IRE)	Colour: 0.06Lux(F1.6, 1/30sec, 30IRE) BW: 0.006Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.07Lux(F1.6, 1/30sec, 30IRE) BW: 0.007Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	–		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	
Focal Length (Zoom Ratio)	1.6mm	2.45mm	3.2~10.2mm(3.2x) motorized varifocal	
Angular Field of View	180° / 145° / 180°	123° / 91° / 159°	H: 104° (Wide) ~ 31° (Tele) V: 55° (Wide) ~ 17° (Tele) D: 124° (Wide) ~ 35° (Tele)	H: 95° (Wide) ~ 29° (Tele) V: 69° (Wide) ~ 21° (Tele) D: 126° (Wide) ~ 36° (Tele)
Pan / Tilt / Rotate	–		0° ~ 350° / –35° ~ 70° / 0° ~ 355°	
IR Viewable Length	–		30m(98.42ft)	40m(131.23ft)
Day & Night	–		Auto(ICR)	
Wide Dynamic Range	–		120dB	
Digital Noise Reduction	–		SSNR V , WiseNR II (Based on AI engine)	
Digital Image Stabilization	–		–	
Analytics	–		Classified object type: Person/Vehicle Attributes: Person, Vehicle(car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line (Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection	
Business Intelligence	–		Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap	
Alarm I/O	–		Input 1ea / Output 1ea	
Audio I/O	–		Selectable(mic in/line in) / Line out	
Video Compression	–		H.265/H.264: Main/High, MJPEG	
WiseStream	–		Manual, WiseStream III (Based on AI engine)	
Streaming	–		Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles)	
Edge Storage	–		Micro SD/SDHC/SDXC 1slot 256GB	
Application Programming Interface	–		ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform	
Operating Temperature / Humidity	–10° C ~+55° C(+14° F ~+131° F) 0~95% RH		–30° C ~+55° C(–22° F ~+131° F) / 0~100%RH(Condensing) * Start up should be done at above –30° C Humidity control with AIR vent	–40° C ~+55° C(–40° F ~+131° F) / 0~100%RH(Condensing) Humidity control with AIR vent
Certification	IP66, NEMA 250 type 4X		IP66, IK10, NEMA 250 type 4X	
Power Consumption	–		Max 12.95W, typical 5.3W	PoE: Max 9.8W, typical 4.0W
Product Dimensions / Weight	ø 35x68.9mm(ø 1.38x2.71"), Cable: 8m(26.2ft) 108g(0.24 lb), Cable: 350g(0.77lb)		ø 110.0x77.0mm(ø 3.54x2.36"), Cable: 8m(26.2ft) 455g(1.00lb), Cable: 350g(0.77lb)	ø 140x110.2mm(ø 5.51x4.34"), 875g(1.87 lb)

AI Camera

36



NEW

QNV-C8013R
5MP AI IR Vandal Dome Camera



NEW

QNV-C8023R
5MP AI IR Vandal Dome Camera



QNV-C9011R
8MP AI IR Micro Vandal Dome Camera



QNV-C8012
8MP AI IR Micro Vandal Dome Camera



QNV-C8011R
5MP AI IR Micro Vandal Dome Camera

Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	5MP / 30fps		8MP / 30fps	
Min. Illumination	Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)		Colour: 0.03(1/30sec, 30IRE) BW: 0.003(1/30sec, 30IRE)	Colour: 0.05(1/30sec, 30IRE) BW: 0.005(1/30sec, 30IRE)
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	
Focal Length (Zoom Ratio)	3.0mm	4.0mm	3.0mm fixed focal	2.4mm fixed focal
Angular Field of View	H: 100° / V: 73° / D: 129°	H: 80° / V: 59° / D: 102°	H: 108° / V: 59° / D: 127°	H: 123° / V: 91° / D: 159°
Pan / Tilt / Rotate	0° ~ 355° / -30° ~ 75° / 0° ~ 355°		0° ~350° / -35° ~70° / 0° ~355°	
IR Viewable Length	25m (82.02ft)	30m (98.42ft)	20m(65.62ft)	20m(65.62ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	120db			
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V			
Digital Image Stabilization	-			
Analytics	Classified object type: Person/Vehicle(car/bus/truck/motorcycle/bicycle) Attributes: Person(Upper/lower clothes colour), Vehicle(Type:car/bus/truck/motorcycle/bicycle and colour) Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Virtual area(Appear/Disappear)		Classified object type: Person/Vehicle Attributes: Person, Vehicle(car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection	
Business Intelligence	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap		Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap	
Alarm I/O	Input 1ea / Output 1ea		-	
Audio I/O	Selectable(mic in/line in) / Line out		-	
Video Compression	H.265/H.264: Main/High, MJPEG			
WiseStream	Manual, WiseStream III (Based on AI engine)		WiseStream III (Based on AI engine)	
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles)		Unicast Up to 20 users / Multicast Support / Multiple Streaming Up to 5 profiles	
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB			
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanuwa Vision Open Platform			
Operating Temperature / Humidity	-30° C ~ +55° C(-22° F ~ +131° F) / 0 ~100% RH(Condensing) * Start up should be done at above -30° C Humidity control with Air vent		-40° C ~+55° C(-40° F ~+131° F) / 0 ~100%RH(Condensing) * Start up should be done at above -30° C Humidity control with AIR vent	
Certification	IP66, IK10		IP66, IK10, NEMA 250 type 4X	
Power Consumption	PoE: Max 8.1W, typical 4.0W		PoE: Max 8.5W, typical 4.9W	Max. 8.5W, typical 4.9W
Product Dimensions / Weight	ø 120x97.5mm(ø 4.72x3.84"), 579g(1.27 lb)		ø 110x77mm(ø 4.33x3.03"), 522g(1.15 lb)	

AI Camera

37



QNO-C9083R
8MP AI IR Bullet Camera



QNO-C8083R
5MP AI IR Bullet Camera



QNO-C6083R
2MP AI IR Bullet Camera



NEW

QNO-C8013R
5MP AI IR Bullet Camera



NEW

QNO-C8023R
5MP AI IR Bullet Camera

Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	8MP/30fps		5MP/30fps	
Min. Illumination	Colour: 0.06(1/30sec, 30IRE) BW: 0.006(1/30sec, 30IRE)		Colour: 0.07(1/30sec, 30IRE) BW: 0.007(1/30sec, 30IRE)	Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.			
Focal Length (Zoom Ratio)	3.2~10.2mm(3.2x)			3.0mm fixed focal
Angular Field of View	H: 104° (Wide)~31° (Tele) V: 55° (Wide)~17° (Tele) D: 124° (Wide)~35° (Tele)	H: 95° (Wide)~29° (Tele) V: 69° (Wide)~21° (Tele) D: 126° (Wide)~36° (Tele)	H: 102.0° (Wide)~32° (Tele) V: 54.2° (Wide)~18° (Tele) D: 119.0° (Wide)~36° (Tele)	H: 100° / V: 73° / D: 129°
Pan / Tilt / Rotate	0° ~ 360° / 0° ~ 100° / 0° ~ 360°			
IR Viewable Length	30m(98.42ft)	30m(98.42ft)	40m(131.23ft)	25m(82.02ft)
Day & Night	Auto(ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	SSNRV , WiseNR II (Based on AI engine)			
Digital Image Stabilization	-			
Analytics	Classified object type: Person/Vehicle Attributes: Person, Vehicle(car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection			Classified object type: Person/Vehicle Attributes: Person(Upper/lower clothes colour), Vehicle(car/bus/truck/motorcycle/bicycle / colour) Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection
Business Intelligence	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap			
Alarm I/O	Input 1ea / Output 1ea			
Audio I/O	Selectable(mic in/line in) / Line out			
Video Compression	H.265/H.264: Main/High, MJPEG			
Smart Codec	Manual, WiseStream III (Based on AI engine)			
Streaming	Unicast(Up to 20 users) / Multicast / Multiple Streaming(Up to 5 profiles)			
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB			
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanuwa Vision Open Platform			
Operating Temperature / Humidity	-30° C ~ +55° C(-22° F ~ +131° F) / 0~100% RH(Condensing) * Start up should be done at above -30° C Humidity control with AIR vent		-40° C ~ +55° C(-40° F ~ +131° F) / 0~100% RH(Condensing) Humidity control with AIR vent	-30° C ~ +60° C(-22° F ~ +140° F)(MAX) / 0~100% RH(Condensing) * Start up should be done at above -30° C Humidity control with Air vent
Certification	IP66, IK10, NEMA 250 type 4X			
Power Consumption	PoE: Max 12W, typical 5.3W		PoE: Max 8.9W, typical 3.7W	PoE: Max 8.1W, typical 4.0W
Product Dimensions / Weight	ø 93.4x245.8mm(ø 3.68x9.68"), 930g(2.05 lb)			ø 93.4x245.8mm(ø 3.68x9.68"), 890g(1.96 lb)

AI Camera



QND-C8013R
5MP AI IR Dome Camera



QND-C8023R
5MP AI IR Dome Camera



QNF-C9010
12MP Fisheye Camera



QNF-C9010V
12MP Vandal Fisheye Camera



QNE-C9013RL
8MP AI Dual Light Flateye Camera



QNE-C8013RL
5MP AI Dual Light Flateye Camera

Imaging Device	1/2.8" CMOS		1/1.6" CMOS		1/2.8" CMOS	
Resolution / Max. Frame Rate	5MP / 30fps		12MP / 20fps		8MP / 30fps	5MP/30fps
Min. Illumination	Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)		Colour: 0.02(1/30sec, 30IRE) BW: 0.001(1/30sec, 30IRE)		Colour: 0.034(1/30sec, 30IRE) BW: 0.0034(1/30sec, 30IRE)	Colour: 0.022Lux (F1.2, 1/30sec) BW: 0.0022Lux (F1.2, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.				-	
Focal Length (Zoom Ratio)	3.0mm fixed focal	4.0mm fixed focal	1.76mm fixed focal		3.0mm fixed focal	
Angular Field of View	H: 100° / V: 73° / D: 129°		H: 185° / V: 185° / D: 185°		H: 108° / V: 59° / D: 127°	H: 97° / V: 71° / D: 130°
Pan / Tilt / Rotate Range	0° ~ 355° / 0° ~ 75° / 0° ~ 355°		Digital Rotation		0° ~350° / 0° ~ 75° / 0° ~360°	0° ~350° / 0° ~ 75° / 0° ~360°
IR Viewable Length	25m (82.02ft)	30m (98.42ft)	-		Warm colour: 30m(98.42ft), IR : 30m(98.42ft)	
Day & Night	Auto(ICR)					
Wide Dynamic Range	120dB					
Digital Noise Reduction	SSNR V , WiseNR II (Based on AI engine)					
Digital Image Stabilization	-					
Analytics	Classified object type: Person/Vehicle Attributes: Person(Upper/lower clothes colour), Vehicle(car, bus, truck, motorcycle, bicycle/colour) Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Virtual area(Appear/ Disappear) * Some of the video analytics only works with people and vehicle detection		Classified object type: Person/Vehicle Attributes: Person(Upper/lower clothes colour), Vehicle (colour) Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit/ Appear/Disappear) Analytics events: Defocus detection, Tampering * Some of the video analytics only works with people and vehicle detection		Classified object type: Person/Vehicle Attributes: Vehicle(car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection	
Business Intelligence	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap		Based on AI engine: People counting, Queue management, Heatmap		Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap	
Alarm I/O	Input 1ea / Output 1ea * Alarm I/O is supported through an optional cable(SPP-C7200)		-			
Audio I/O	Built-in mic / -		-			
Video Compression	H.265/H.264: Main/High, MJPEG					
WiseStream	Manual(Sea area), WiseStream III (Based on AI engine)				Manual, WiseStream III (Based on AI engine)	
Streaming	Unicast(Up to 20 users) / Multicast / Multiple streaming(Up to 5 profiles)					
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB					
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanuwa Vision Open Platform					
Operating Temperature / Humidity	-10° C ~ +45° C(+14° F ~ +113° F) / 0 ~95% RH(Non-Condensing)	-10° C ~ +40° C(+14° F ~ +104° F) / 0 ~ 90% RH	-40° C ~ +55° C(-40° F ~ +131° F) / 0 ~100% RH(condensing) * Start up should be done at above -30° C	-40° C ~+60° C(-40° F ~+140° F) / 0 ~100% RH *Start up should be done at above -30° C, Humidity control with AIR vent		
Certification	-		IP42	IP66, IK10, NEMA4X	IP66, IK10	
Power Consumption	PoE: Max 8.1W, typical 4.0W		PoE: Max 7.3W, typical 4.3W	PoE: Max 6.7W, typical 4.8W	PoE: Max 10.0W, typical 4.5W	
Product Dimensions / Weight	ø 110x90mm(ø 4.33x3.54"), 317.0g(0.70 lb)		ø 99x52mm(ø 3.9x2.05"), 360g(0.79lb)	ø 120x72.3mm(ø 4.7x2.85") 583g(1.28lb)	ø 140.0x99.6mm(ø 5.51x3.92"), 790g(1.74 lb)	

AI Camera



TNP-A9430RW
4K AI Ruggedized PTZ Camera



TNP-A7430RW
4MP AI Ruggedized PTZ Camera



TNP-A6550RW
2MP AI RUGGEDIZED PTZ CAMERA

Imaging Device	1/1.8" CMOS		1/2.8" CMOS
Resolution / Max. Frame Rate	8MP / 30fps	4MP / 60fps	2MP / 60fps
Min. Illumination	Colour(1/30sec, 30IRE): 0.06 Lux(F1.69, 1/30sec, 30 IRE) BW(1/30sec, 30IRE): 0.006 Lux(F1.69, IR LED Off), 0Lux (IR LED On)	Colour(1/30sec, 30IRE): 0.04 Lux(F1.69, 1/30sec, 30 IRE) BW(1/30sec, 30IRE): 0.004 Lux(F1.69, IR LED Off), 0Lux (IR LED On)	Colour(1/30sec, 30IRE): 0.02Lux(F1.6, 1/30sec) BW(1/30sec, 30IRE): 0.002 lux (1/30sec,F1.6), 0Lux(IR LED On)
Video Out	—	—	—
Focal Length (Zoom Ratio)	6.1~262.4 (Optical: 43, Digital: 1367)	6.1~262.4(Optical: 43, Digital: 1367)	4.75~261.4(Optical: 55, Digital: 1760)
Angular Field of View	Horizontal: 63.62° (Wide)~1.77° (Tele) Vertical: 37.69° (Wide)~0.99° (Tele) Diagonal: 70.9° (Wide)~2.05° (Tele)	Horizontal: 62.5° (Wide)~1.72° (Tele) Vertical: 38.42° (Wide)~1.00° (Tele) Diagonal: 70.34° (Wide)~2.02° (Tele)	Horizontal: 58.6° (Wide)~1.23° (Tele) Vertical: 34.8° (Wide)~0.71° (Tele) Diagonal: 65.5° (Wide)~1.39° (Tele)
Pan / Tilt / Rotate Range	360° Endless Upright: 140° (50° ~~-90°), Canted: 165° (75° ~~-90°), Inverted: 140° (90° ~~-50°)		
IR Viewable Length	500m(1,640.42ft)	500m(1,640.42ft)	600m(1,968.50ft)
Day & Night	Auto(ICR)		
Wide Dynamic Range	120		
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		
Digital Image Stabilization	Support(built-in gyro sensor)		
Analytics	Classified Object Type: Person, Face, Vehicle, License plate Attributes: Person(Upper/Lower clothes colour, Gender, Bag) Vehicle(Type(car, bus, truck, motorcycle, bicycle), Colour) Face(Age, Gender, Face mask, Glasses) Thumbnail: BestShot Analytics Events: Based on AI Engine(Object detection, Virtual line(Crossing/Direction), Motion detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/ Appear/Disappear), Auto tracking) Normal(Tampering, Audio detection, Shock detection)		
Business Intelligence	—		
Alarm I/O	Support alarm I/O via optional I/O box		
Audio I/O	Support via optional I/O box		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
WiseStream	Manual(5ea area), WiseStream III (Based on AI engine)		
Streaming	Unicast: Up to 20 users Multicast: Support Multiple Streaming: Up to 10 profiles		
Edge Storage	Micro SD/SDHC/SDXC: Max. 1TB x 1slot		
Application Programming Interface	ONVIF: S/G/T/M Others: SUNAPI(HTTP API), Hanuwa Vision Open Platform		
Operating Temperature / Humidity	-50° C~-60° C(-58° F~+140° F)/ 0~100% RH(condensing)		
Certification	IP66, IP68, IK10, NEMA TS 2-2013 (2.1.9, 2.1.10, 2.2.4, 2.2.7, 2.2.8, 2.2.9), NEMA (250, 250 type 4X), NEMA (5, 5.6), MIL-STD-810H (501.7, 502.7, 503.7, 505.7, 506.6, 507.6, 509.7, 510.7, 521.4)		
Power Consumption	PoE: Max 71W, Typical 33.2W		Max. 71W, typical 28.3W
Product Dimensions / Weight	Upright Normal/Inverted : 293.4(W)x205.6(D)x399.9(H)mm (11.55x8.09x15.74")Upright Canted : 293.4(W)x301.9(D)x363.6.9(H)mm (11.55x11.89x14.31") 10.5kg(9.5kg: Excluding installation part)		Upright Normal/Inverted : 293.4(W)x205.6(D)x399.9(H)mm (11.55x8.09x15.74")Upright Canted : 293.4(W)x301.9(D)x363.6.9(H)mm (11.55x11.89x14.31") 10.4kg(9.4kg: Excluding installation part)



TNP-A6550RWB
2MP AI PTZ Camera



TNP-A7430RWB
4MP AI PTZ Camera



TNP-A9430RWB
8MP AI PTZ Camera

Imaging Device	1/2.8" CMOS	1/1.8" CMOS	
Resolution / Max. Frame Rate	2MP/ 60fps	4MP/ 60fps	8MP/ 30fps
Min. Illumination	Colour(F1.69, 1/30sec, 30 IRE) 0.02 BW(1/30sec, 30IRE) 0.002 (F1.69, IR LED Off), 0Lux (IR LED On)	Colour(F1.69, 1/30sec, 30 IRE) 0.04 BW(1/30sec, 30IRE) 0.004 (F1.69, IR LED Off), 0Lux (IR LED On)	Colour(F1.69, 1/30sec, 30 IRE) 0.06 BW(1/30sec, 30IRE) 0.006 (F1.69, IR LED Off), 0Lux (IR LED On)
Video Out	-		
Focal Length (Zoom Ratio)	4.75~261.4mm	6.1~262.4mm	6.1~262.4mm
Angular Field of View	H: 58.6 ° (Wide)~1.23 ° (Tele) V: 34.8 ° (Wide)~0.71 ° (Tele) D: 65.5 ° (Wide)~1.39 ° (Tele)	H: 62.5 ° (Wide)~1.72 ° (Tele) V: 38.42 ° (Wide)~1.00 ° (Tele) D: 70.34 ° (Wide)~2.02 ° (Tele)	H: 63.62 ° (Wide)~1.77 ° (Tele) V: 37.69 ° (Wide)~0.99 ° (Tele) D: 70.9 ° (Wide)~2.05 ° (Tele)
Pan / Tilt / Rotate Range	360° Endless / Upright: 140° (50° ~~-90°), Canted: 165° (75° ~~-90°), Inverted: 140° (90° ~~-50°) / -		
IR Viewable Length	600m(1,968.50ft)	500m(1,640.42ft)	
Day & Night	Auto(ICR)		
Wide Dynamic Range	120dB		
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V		
Digital Image Stabilization	Support(built-in gyro sensor)		
Analytics	Classified object type: Person, Face, Vehicle, License plate Attributes: Person(Upper/Lower clothes colour, Gender, Bag), Vehicle (Type(car, bus, truck, motorcycle, bicycle), Colour), Face (Age, Gender, Face mask, Glasses) Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Motion detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/ Appear/Disappear), Auto tracking Analytics events: Tampering, Audio detection, Shock detection		
Business Intelligence	-		
Alarm I/O	Support alarm I/O via optional I/O box		
Audio I/O	Support via optional I/O box		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
WiseStream	WiseStream(Based on AI engine)		
Streaming	Unicast (Up to 20 users) Multicast (Support) Multiple Streaming (Up to 10 profiles)		
Edge Storage	Micro SD/SDHC/SDXC, Max. 1TB x 1slot		
Application Programming Interface	ONVIF S, G, T, M, SUNAPI(HTTP API), Hanwha Vision Open Platform		
Operating Temperature / Humidity	-50° C~-60° C(-58° F~~+140° F) 0~100% RH(condensing)		
Certification	IP66, IP68, IK10, NEMA TS 2~2013 (2.2.7, 2.2.8, 2.2.9),NEMA 250 type 4X		
Power Consumption	Max. 71W, typical 28.3W	Max 71W, Typical 33.2W	
Product Dimensions / Weight	10.4kg(9.4kg: Excluding installation part)	10.5kg(9.5kg: Excluding installation part)	



TNO-C3082T
QVGA Radiometric AI Thermal Camera



TNO-C3080T
QVGA Radiometric AI Thermal Camera



TNO-C3062T
QVGA Radiometric AI Thermal Camera



TNO-C3060T
QVGA Radiometric AI Thermal Camera

Imaging Device	Uncooled micro bolometer (384x288)			
Resolution	768x576, 384x288			
Max. Frame Rate	8fps		30fps	
NETD	≤20mK @25°C, F1.0		≤20mK @25°C	
Pixel pitch	17μm			
Focal Length	60mm fixed focal		35mm fixed focal	
Angular Field of View	H: 6.2° / V: 4.7° / D: 7.7° iFoV: 0.283 mRad		H: 10.7° / V: 8.0° / D: 13.3° iFoV: 0.486 mRad	
Pan / Tilt / Rotate Range	0° ~350° / 0° ~90° / 0° ~350°			
Min. Object Distance	88.3m(289.7ft)		36.1m(118.44ft)	
Video out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.			
Analytics	Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)			
Alarm I/O	2 configurable I/O ports * Support extra alarm I/O via optional SPM-4210 I/O box			
Audio I/O	Selectable(mic in/line in) / Line out			
Temperature Detect Range	-			
Temperature Accuracy	-			
Temperature Detection	-			
WiseStream	Manual(Sea area), WiseStream II , WiseStream III (Based on AI engine)			
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 10 profiles)			
Edge Storage	Micro SD/SDHC/SDXC 1slot Max. 1TB			
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API, Hanwha Vision Open Platform			
Memory	2GB RAM, 512MB Flash			
Operating Temperature	-40° C ~ +60° C(-40° F ~ +140° F) 0~95% RH(non-condensing)			
Certification	IP66, IP67, IK10, NEMA4X, NEMA-TS 2(2.2.7, 2.2.8, 2.2.9)			
Power Consumption	PoE: Max 10.8W, typical 9W 12VDC: Max 9.4W, typical 7.7W			
Dimensions (WxHxD) / Weight	ø 107.3 x 275mm(ø 4.22/10.83"), 2,340g(5.16 lb)		ø 107.3 x 275mm(ø 4.22/10.83"), 2,370g(5.22 lb)	



TNO-C3052T
QVGA AI Tele lens Thermal Camera



TNO-C3050T
QVGA AI Tele lens Thermal Camera



TNO-C3042T
QVGA AI Tele lens Thermal Camera



TNO-C3040T
QVGA AI Tele lens Thermal Camera



TNO-C3032TRA
QVGA Radiometric AI Thermal Camera

Imaging Device	Uncooled micro bolometer (384x288)				
Resolution	768x576, 384x288				
Max. Frame Rate	8fps	30fps	8fps	30fps	8fps
NETD	≤20mK@25° C, F1.0	≤20mK @25℃			≤30mK
Pixel pitch	17μm				
Focal Length	19mm fixed focal		13mm fixed focal		9.7mm fixed focal
Angular Field of View	H: 19.3° / V: 14.6° / D: 23.9° iFoV: 0.895 mRad		H: 28.5° / V: 21.4° / D: 35.5° iFoV: 1.308 mRad		H: 38° / V: 29° / D: 47° (iFoV: 1.8 mRad)
Min. Object Distance	10.6m(34.78ft)		5m(16.40ft)		2.8m(9.19ft)
Pan / Tilt / Rotate Range	0° ~350° / 0° ~90° / 0° ~350°				-
Video out	USB: Micro USB Type B, 768x576 for installation				USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.
Analytics	Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)				Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear), Temperature detection, Tank level detection, Temperature change detection
Alarm I/O	2 configurable I/O ports * Support extra alarm I/O via optional SPM-4010 I/O box				2 configurable I/O ports
Audio I/O	Selectable(mic in/line in) / Line out				
Temperature Detect Range	-				-40° C~550° C(-40° F~1,022° F)
Temperature Accuracy	-				Below 150° C: up to ±2° C Above 150° C: up to ±15% * based on measurements in a room temperature environment. Auto Temperature mode
Temperature Detection	-				10 Polygonal ROI zones
Additional	Temperature change detection (3 areas)				Hybrid palettes, Spot temperature reading (ROI condition monitoring: Above/ Below/ Increase/ Decrease)
WiseStream	Manual(5ea area), WiseStream II , WiseStream III				Manual, WiseStream III
Streaming	Unicast(20 users) / Multicast / Multiple Streaming (Up to 10 profiles)				
Edge Storage	Micro SD/SDHC/SDXC 1slot Max. 1TB				
Application Programming Interface	ONVIF Profile S/G/T/M , SUNAPI(HTTP API) Hanwha Vision Open Platform				
Memory	2GB RAM, 512MB Flash				
Operating Temperature	-40° C~+60° C(-40° F~+140° F); +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) 0~95% RH(non-condensing)				-40° C~+60° C(-40° F~+140° F) / 0~95% RH(non-condensing)
Certification	IP66, IP67, IK10, NEMA4X, NEMA-TS 2(2.2.7, 2.2.8, 2.2.9), MIL-STD-810H				IP66, IP67, IK10, NEMA 250 type 4X
Power Consumption	PoE: Max 10.8W, typical 9W, 12VDC: Max 9.4W, typical 7.7W				
Dimensions (WxHxD) / Weight	ø 93.8 x 233.5mm(ø 3.69/9.19"), 1,730g(3.81 lb)				ø 93.8x233.5mm(ø 3.69X/9.19"), 1,700g(3.75 lb)



TNO-C3030TRA
QVGA Radiometric AI Thermal Camera



TNO-C3022TRA
QVGA Radiometric AI Thermal Camera



TNO-C3020TRA
QVGA Radiometric AI Thermal Camera



TNO-C3012TRA
QVGA Radiometric AI Thermal Camera



TNO-C3010TRA
QVGA Radiometric AI Thermal Camera

Imaging Device	Uncooled micro bolometer (384x288)				
Resolution	768x576, 384x288(original)				
Max. Frame Rate	30fps	8fps	30fps	8fps	30fps
NETD	≤ 30mK	＜ 30mK			
Pixel pitch	17μm				
Focal Length	9.7mm fixed focal	6.6mm fixed focal		4.4mm fixed focal	
Angular Field of View	H: 38° / V: 29° / D: 47° (iFoV: 1.8 mRad)	H: 60° / V: 44° / D: 78° (iFoV: 2.6 mRad)		H: 90° / V:65° / D:119° (iFoV: 3.9 mRad)	H:90° / V:65.3° / D:118.6 (iFoV: 3.9 mRad)
Min. Object Distance	2.8m(9.19ft)	1.4m(4.59ft)		0.6m(1.97ft)	
Video out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.				
Analytics	Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)
Alarm I/O	2 configurable I/O ports				
Audio I/O	Selectable(mic in/line in) Line out				
Temperature Detect Range	-40° C~550° C(-40° F~1,022° F)				
Temperature Accuracy	Below 150° C: up to ± 2° C Above 150° C: up to ± 15% * based on measurements in a room temperature environment. Auto Temperature mode				
Temperature Detection	10 Polygonal ROI zones				
Additional	Hybrid palettes, Spot temperature reading (ROI condition monitoring: Above/ Below/ Increase/ Decrease)				
WiseStream	Manual(Sea area), WiseStream II , WiseStream III (Based on AI engine)				
Streaming	Unicast(20 users) / Multicast / Multiple streaming(Up to 10 profiles)				
Edge Storage	Micro SD/SDHC/SDXC 1 slot Max. 1TB				
Application Programming Interface	ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform				
Memory	2GB RAM, 512MB Flash				
Operating Temperature	-40° C~-60° C(-40° F~+140° F) / 0~95% RH(non-condensing)				
Certification	IP66, P67, IK10, NEMA 250 type 4X				
Power Consumption	PoE: Max 10.8W, typical 9W, 12VDC: Max 9.4W, typical 7.7W				
Product Dimensions / Weight	ø 93.8x233.5mm(ø 3.69X/9.19"), 1,700g(3.75 lb)				



TNM-C2712TDR
Early Fire Detection Bi-spectrum Thermal Camera

Imaging Device	Thermal	Visible	Thermal	Visible
	Uncooled micro bolometer (160x120)	1/2.8" CMOS	Uncooled micro bolometer (160x120)	1/2.8" CMOS
Resolution / Max. Frame Rate	VGA / 8fps	3MP / 30fps	H.265/H.264 8fps MJPEG 5fps	H.265/H.264 30fps/25fps(60Hz/50Hz) MJPEG 5fps
Min. Illumination	–	Colour: 0.06Lux(1/30sec, 30IRE) BW: 0.06Lux(1/30sec, 30IRE)	F1.1	Colour/BW: 0.06
Focal Length (Zoom Ratio)	1.2mm	3.06mm	1.9mm	4.46mm
Angular Field of View	H: 95° / V: 69° / D: 119°	H: 100° / V: 73° / D: 129°	H: 57° / V: 44° / D: 71°	H: 69° / V: 50.8° / D: 88.9°
Pan / Tilt / Rotate	0° ~ 360° / 0° ~ 70° / 0° ~ 360°			
IR Viewable Length	–			
Day & Night	–	Auto(Electrical)	–	Auto(Electrical)
Wide Dynamic Range	–	BLC, WDR, SDDR	–	BLC, WDR, SDDR
Digital Noise Reduction	–	SSNR V	–	SSNR V
Digital Image Stabilization	–	Support	–	Support
Analytics	Temperature detection, Temperature difference detection, Motion detection	Early fire detection, Tampering, Audio detection, Motion detection	Temperature detection, Temperature difference detection, Motion detection	
Business Intelligence	–			
Alarm I/O	Input 1ea / Output 1ea			
Audio I/O	Selectable(mic in/line in) / Line out			
Video Compression	H.265/H.264: Main/High, MJPEG			
Edge Storage	Micro SD/SDHC/SDXC 1slots 512GB			
Operating Temperature / Humidity	–30° C ~ +55° C(–22° F ~ +131° F) / 0~95% RH(non–condensing), * Start up should be done at above –10° C			
Certification	IP66, IP67, IK09 (except lenses in front)			
Power Consumption	PoE: Max 10.8W, typical 6.2W			
Product Dimensions / Weight	ø 110x97mm(ø 4.33x3.82"), 650g(1.43lb)			



TNM-C2722TDR
Early Fire Detection Bi-spectrum Thermal Camera



TNM-C4960TD
Bi-spectrum AI Thermal Camera

Imaging Device	Thermal	Visible	Thermal	Visible
	Uncooled micro bolometer	1/1.8" CMOS	Uncooled micro bolometer (640x480)	1/1.8" CMOS
Resolution / Max. Frame Rate	640x480 / 30fps	3840x2160 / 30fps	640x480 / 30fps	3840x2160 / 30fps
Min. Illumination	–	Colour: 0.06Lux(F1.7, 1/30sec, 30IRE) BW: 0.005Lux(F1.7, 1/30sec, 30IRE)	–	Colour: 0.06Lux(F1.7, 1/30sec, 30IRE) BW: 0.005Lux(F1.7, 1/30sec, 30IRE)
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	
Focal Length (Zoom Ratio)	25mm	10.9~29mm(2.6x)	13.5mm	10.9~29mm(2.6x)
Angular Field of View	H: 17° , V: 13° , D: 22°	H:42.0° (Wide) ~15.0° (Tele) / V:23° (Wide) ~ 8° (Tele) / D:49° (Wide) ~17° (Tele)	H: 31.9° V: 24.2° , D: 39.5°	H:42.0° (Wide) ~15.0° (Tele) / V:22.8° (Wide) ~ 8.4° (Tele) / D:48.7° (Wide) ~17.1° (Tele)
Pan / Tilt / Rotate	–170° ~+170° / –40° ~50° / None		–	
IR Viewable Length	–			
Day & Night	–	Auto(ICR)	–	Auto(ICR)
Wide Dynamic Range	–	WDR(120dB)	–	WDR(120dB)
Digital Noise Reduction	–	WiseNR II , SSNR V	–	SSNR V, WiseNR II
Digital Image Stabilization	–	Support(built-in gyro sensor)	–	Support(built-in gyro sensor)
Analytics	Analytics events based on AI engine : Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Stopped vehicle, Traffic jam Analytics events : Motion detection, Temperature change detection	Analytics events based on AI engine – Object detection(Person, face, Vehicle(car/bus/truck/ motorcycle/bicycle), License plate), Bestshot, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/ Enter/Exit), Stopped vehicle, Traffic jam Analytics events : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear) * Some of the video analytics only works with people and vehicle detection	Analytics events based on AI engine : Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Stopped vehicle, Traffic jam Analytics events : Motion detection, Temperature change detection	Analytics events based on AI engine – Object detection(Person, face, Vehicle(car/bus/truck/ motorcycle/bicycle), License plate), Bestshot, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/ Enter/Exit), Stopped vehicle, Traffic jam Analytics events : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear) * Some of the video analytics only works with people and vehicle detection
Business Intelligence	Vehicle counting			
Alarm I/O	4 configurable I/O ports			
Audio I/O	–		Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms	
Video Compression	H.265/H.264: Main/High, MJPEG		–	
WiseStream	WiseStream II	Manual(Sea area), WiseStream III	WiseStream II	Manual(Sea area), WiseStream III
Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)			
Edge Storage	256GB x 2slot(Total 512GB)			
Application Programming Interface	ONVIF Profile S/T, SUNAPI(HTTP API) Hanwha Vision Open Platform (visible channel only)			
Operating Temperature / Humidity	–40° C~+60° C(–58° F~+140° F) * Start up should be done at above –30° C, less than 95% RH(non–condensing)			
Certification	IP67, IK10, NEMA TS 2–2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X			
Power Consumption	PoE+ : Max 23.5W, Typ 16.0W 12VDC : Max 19.5W, Typ 14.0W			
Product Dimensions / Weight	353.4(W)x287.5(H)x191.2(D)mm(13.92x11.32x7.53")/ 4,530g(9.99lb)			



TNM-C4950TD
Bi-spectrum AI Thermal Camera

AI Camera

46



TNM-C4940TD
Bi-spectrum AI Thermal Camera

Imaging Device	Thermal	Visible		
	Uncooled micro bolometer	1/1.8" CMOS	Uncooled micro bolometer	1/1.8" CMOS
Resolution / Max. Frame Rate	640x480 / 30fps	8M / 30fps	640x480 / 8fps	8M / 30fps
Min. Illumination	—	Colour: 0.06Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on)	—	Colour: 0.06Lux(F1.3, 1/30sec) BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)
Video Out	USB : Micro USB Type B, 1280x720 for installation		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	
Focal Length (Zoom Ratio)	9.1mm	4.4~9.3mm(2.2x)	9.1mm	4.4~9.3mm varifocal
Angular Field of View	H: 50.0° / V: 37.0° / D: 63.8° (iFoV: 1.319 mRad)	H:112.1° (Wide) ~ 47.5° (Tele) / V:58.0° (Wide) ~ 26.6° (Tele) / D:137.5° (Wide) ~ 54.6° (Tele)	H: 50.0° / V: 37.0° / D: 63.8° (iFoV: 1.319 mRad)	H:112.1° (Wide)~47.5° (Tele) / V:58.0° (Wide)~26.6° (Tele) / D:137.5° (Wide)~54.6° (Tele)
Pan / Tilt / Rotate	-170° ~ +170° / -40° ~ 50° / -			
IR Viewable Length	—			
Day & Night	—	Auto(ICR)	—	Auto(ICR)
Wide Dynamic Range	—	WDR(120dB)	—	WDR(120dB)
Digital Noise Reduction	—	WiseNR II , SSNR V	—	SSNR V, WiseNR II
Digital Image Stabilization	—	Support(built-in gyro sensor)	—	Support(built-in gyro sensor)
Analytics	Analytics events based on AI engine : Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Stopped vehicle, Traffic jam Analytics events: Motion detection, Temperature change detection	Analytics events based on AI engine : Object detection(Person, face, Vehicle (car/bus/truck/motorcycle/bicycle), License plate), Bestshot, Virtual line*(Crossing/Direction), Virtual area *(Loitering/Intrusion/Enter/Exit), Stopped vehicle, Traffic jam Analytics events : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/ Disappear) * Some of the video analytics only works with people and vehicle detection	Classified object type : Person/Vehicle Support BestShot Analytics events based on AI engine : Object detection, Virtual line(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit) Analytics events : Motion detection, Temperature detection	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/ bicycle) Support BestShot Analytics events based on AI engine : Object detection, Virtual line(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit) Analytics events : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/ Disappear) * Some of the video analytics only works with people and vehicle detection
Business Intelligence	Vehicle counting		—	
Alarm I/O	—		4 configurable I/O ports	
Audio I/O	—		Selectable(mic in/line in)	
Video Compression	H.265/H.264: Main/High, MJPEG			
WiseStream	WiseStream II	Manual(Sea area), WiseStream III	WiseStream II	Manual(Sea area), WiseStream III
Streaming	Unicast(6 users) / Multicast / Multiple Streaming(Up to 3 profiles)			
Edge Storage	Micro SD/SDHC/SDXC 256GB x 2slot(Total 512GB)			
Application Programming Interface	ONVIF Profile S/T/M, SUNAPI(HTTP API), Hanuwa Vision Open Platform (visible channel only)			
Operating Temperature / Humidity	-40° C~+60° C(-58° F~+140° F) * Start up should be done at above -30° C, less than 95% RH(non-condensing)			
Certification	IP66, IP67, IK10, NEMA TS 2(2.2.8, 2.2.9), NEMA 250 type 4X			
Power Consumption	PoE+ : Max 25.5W, Typ 16.0W, 12VDC : Max 21.5W, Typ 14.0W			
Product Dimensions / Weight	353.4(W)x287.5(H)x191.2(D)mm(13.92x11.32x7.53")/ 4,530g(9.99lb)			

AI Camera

47



TNM-C4940TDR
Radiometric Bi-spectrum AI Thermal Camera

	Thermal	Visible	Thermal	Visible
Imaging Device	Uncooled micro bolometer (Spectral range: 8~14μm, 12μm, <60mK)	1/1.8" CMOS	Uncooled micro bolometer (Spectral range: 8~14μm, 12μm, ≤50mK)	1/2.8" CMOS
Resolution / Max. Frame Rate	640x480 / 30fps	8MP/ 30fps	320x240/ 8fps	2MP / 30fps
Min. Illumination	—	Colour: 0.06Lux(F1.3, 1/30sec) BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)	—	Colour: 0.05 lux(F1.6, 1/30sec) B/W: 0.005 lux(F1.6, 1/30sec)
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB : Micro USB Type B, 1280x720 for installation	
Focal Length (Zoom Ratio)	9.1mm	4.4~9.3mm	4.7mm	4mm
Angular Field of View	H: 50.0° / V: 37.0° / D: 63.8° (iFoV: 1.319 mRad)	H:112.1° (Wide)~47.5° (Tele) / V:58.0° (Wide)~26.6° (Tele) / D:137.5° (Wide)~54.6° (Tele)	H: 50.0° / V: 36.4° / D: 65.3° (iFoV: 2.553 mRad)	H: 87.6° / V: 46.4° / D: 104.5°
Pan / Tilt / Rotate	-170° ~+170° / -40° ~50° / -		—	
IR Viewable Length	—			
Day & Night	—	Auto(ICR)	—	Auto(ICR)
Wide Dynamic Range	—	WDR(120dB)	—	extremeWDR(150dB)
Digital Noise Reduction	—	SSNR V, WiseNR II	—	SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)			
Analytics	Classified object type : Person/Vehicle Support BestShot Analytics events based on AI engine : Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events Motion detection, Temperature detection	Classified object type : Person/Face/Vehicle/License plate Attributes: Vehicle(Type:car/bus/truck/motorcycle/ bicycle) Support BestShot Analytics events based on AI engine : Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear) * Some of the video analytics only works with people and vehicle detection	Analytics Events: Motion detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing, Direction) , Temperature detection	Classified object type: Person, Face Analytics events based on AI engine: Object Detection Analytics events: Motion detection, Tampering, Audio detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing, Direction)
Business Intelligence	—			
Alarm I/O	4 configurable I/O ports		Input 1ea / Output 2ea	
Audio I/O	Selectable (mic in/line in) / Line out			
Video Compression	H.265/H.264: Main/High, MJPEG		H.265/H.264: Main/Baseline/High, MJPEG	
WiseStream	WiseStream II	Manual(Sea area), WiseStream III	Manual, WiseStream II	Manual, WiseStream II
Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)		Unicast(20 users) / Multicast Multiple streaming(Up to 6 profiles)	
Edge Storage	Micro SD/SDHC/SDXC 256GB x 2slot(Total 512GB)		Micro SD/SDHC/SDXC 1slot 256GB	
Application Programming Interface	ONVIF Profile S/T/M, SUNAPI(HTTP API) Hanuwa Vision Open Platform (visible channel only)		ONVIF Profile S/T/M, SUNAPI(HTTP API)	
Operating Temperature / Humidity	-40° C~-+60° C(-58° F~-+140° F) * Start up should be done at above -30° C 0~95% RH(non-condensing)		-10° C~-+55° C(+14° F~-+131° F) / Less than 95% RH(non-condensing)	
Certification	IP66, IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9)		—	
Power Consumption	PoE+ : Max 25.5W, Typ 16.0W / 12VDC : Max 21.5W, Typ 14.0W		PoE+: Max. 17.0W, typical 12.5W / 12VDC: Max. 14.5W, typical 11.0W	
Product Dimensions / Weight	353.4(W)x287.5(H)x191.2(D)mm(13.92x11.32x7.53"), 4,530g(9.99lb)		135(W)x75(H)x188.5(D)mm, (5.31x2.95x7.42"), 1,700g(3.77lb)	

AI Camera



TNM-C3620TDR
Radiometric Bi-spectrum AI Thermal Camera



TNO-A26081
26MP AI Bullet camera



TNV-C8011RW
AI Wall Mount Camera

Imaging Device	Thermal	Visible	Diagonal 28.3mm 1.8" CMOS	1/2.8" CMOS
	Uncooled micro bolometer (Spectral range: 8~14μm, 12μm, ≤50mk)	1/2.8" CMOS		
Resolution / Max. Frame Rate	320x240 / 30fps	2MP / 30fps	26MP / 30fps	5MP / 30fps
Min. Illumination	—	Colour: 0.05 lux(F1.6, 1/30sec) B/W: 0.005 lux(F1.6, 1/30sec)	Colour : 0.2Lux(F4.0, 1/30sec, 30IRE) B/W : 0.02Lux(F4.0, 1/30sec)	Colour: 0.038Lux(F1.6, 1/30sec, 30IRE) BW: 0.0038Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Out	CVBS: 1.0 Vp-p / 75 Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		USB: Micro USB Type C, 1280x720 for installation	USB: Micro USB Type B, 1280x720 for installation
Focal Length (Zoom Ratio)	4.7mm fixed focal	4mm fixed focal	55~250mm(4.54x) manual varifocal	1.6mm fixed focal
Angular Field of View	H: 50.0° / V: 36.4° / D: 65.3° (FoV: 2.553 mRad)	H: 87.6° / V: 46.4° / D: 104.5°	H: 24° (Wide) ~ 5.4° (Tele) V: 16° (Wide) ~ 3.6° (Tele) D: 29° (Wide) ~ 6.5° (Tele)	H: 175° / V: 125° / D: 175°
IR Viewable Length	—			15m(49.21ft)
Day & Night	—	Auto(ICR)		—
Wide Dynamic Range	—	extremeWDR(150dB)	—	120dB
Digital Noise Reduction	—	SSNR V	SSNR V , WiseNR II (Based on AI engine)	
Digital Image Stabilization	Support(built-in gyro sensor)			—
Analytics	Motion detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing, Direction) , Temperature detection	Classified object type: Person, Face Analytics events based on AI engine: Object detection, Analytics events: Motion detection, Tampering, Audio detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Classified object type: Person/Face/Vehicle/ License plate Attributes: Person(Upper/Lower clothes colour, Gender, Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type:car/bus/truck/motorcycle/bicycle and Colour) Support Bestshot per object Analytics events based on AI engine: Object/Motion detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Analytics events: Defocus detection, Tampering, Audio detection, Virtual area(Appear/Disappear) *Some of the video analytics only works with people and vehicle detection	Classified object type: Person/Face/ Vehicle Attributes: Vehicle(Type:car/bus/truck/motorcycle/ bicycle) Support DetectionShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear) * Some of the video analytics only works with people and vehicle detection
Business Intelligence	—		Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap	
Alarm I/O	Input 1ea, Output 2ea		2 configurable I/O ports	—
Audio I/O	Selectable (mic in/line in) / Line out			Built-in mic only / —
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		H.265/H.264: Main/High, MJPEG	H.265/H.264: Main/High, MJPEG
WiseStream	Manual, WiseStream II		Manual(5ea area), WiseStream III (Based on AI engine)	
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 6 profiles)		Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles)	Unicast(20 users) / Multicast, Multiple streaming(Up to 5 profiles)
Edge Storage	Micro SD/SDHC/SDXC 1 slot 256GB		Micro SD/SDHC/SDXC 512GB x 2slot(Total 1TB)	Micro SD/SDHC/SDXC 1slot 256GB
Application Programming Interface	ONVIF Profile S/T/M, SUNAPI(HTTP API)		ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanwha Vision Open Platform	ONVIF Profile S/G/T/M SUNAPI(HTTP API), Hanwha Vision Open Platform
Operating Temperature / Humidity	-10° C~+55° C(+14° F~+131° F) / Less than 95% RH(non-condensing)		-40° C ~+55° C (-40° F ~+131° F) 0~100% RH(condensing)	-30° C ~+55° C (-22° F ~+131° F) / Less than 95% RH(non-condensing)
Certification	—		—	IP66, IK10
Power Consumption	PoE+: Max. 17.0W, typical 12.5W 12VDC: Max. 14.5W, typical 11.0W		PoE++ : Max 44.3W, Typical 24.9W 12VDC: Max 35.4W, Typical 19.6W	Max 11.5W / Typ 4.8W
Product Dimensions / Weight	135(W)x75(H)x188.5(D)mm, (5.31x2.95x7.42"), 1,700g(3.77lb)		193.5x193.5x532mm(7.62"x7.62"x20.94"), 8,100g(17.86lb)	80(W)x167(H)x57(D)mm(3.15x6.56x2.24"), 600g(1.32 lb)

AI Camera



TNO-C8083E
5MP AI Explosion-proof Camera



TNV-C8014RM
T AI Mobile



TNV-C8034RM
T AI Mobile



TNV-C7013RC
AI Corner Mount Camera

Imaging Device	1/2.8" CMOS			1/1.8" CMOS
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps		3MP / 30fps
Min. Illumination	Colour: 0.07Lux(F1.6, 1/30sec, 30IRE) BW: 0.007Lux(F1.6, 1/30sec, 30IRE)	Colour: 0.03Lux (F1.6, 1/30sec, 30IRE) BW: 0.003Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.03Lux (F1.65, 1/30sec, 30IRE) BW: 0.003Lux (F1.65, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour(1/30sec, 30IRE) 0.04 BW(1/30sec, 30IRE) 0.004
Video Out	—	USB: Micro USB Type B, 1280x720 for installation		—
Focal Length (Zoom Ratio)	3.2~10.2mm(3.2x)	3.0mm	6.0mm	2.39mm
Angular Field of View	H: 95° (Wide)~29° (Tele) V: 69° (Wide)~21° (Tele) D: 126° (Wide)~36° (Tele)	H: 100° / V: 73° / D: 129°	H: 50° / V: 37° / D: 64°	H: 128° / V: 100°
Pan / Tilt / Rotate	—	± 5° / 0° ~ 67° / ± 90°	± 5° / 0° ~ 67° / ± 90°	—
IR Viewable Length	—	30m(98.42ft)		WiselR 15m (49.21ft)
Day & Night	Auto(ICR)	Auto(ICR)		
Wide Dynamic Range	120dB	120dB		
Digital Noise Reduction	SSNR V , WiseNR II (Based on AI engine)	SSNR V , WiseNR II (Based on AI engine)		
Digital Image Stabilization	—	Support		
Analytics	Classified object type: Person/Vehicle Attributes: Vehicle(Type:car/bus/truck/motorcycle/bicycle) Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Motion detection, Tampering, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection	Classified object type: Person/Vehicle Attributes: Person(Upper/lower clothes colour), Vehicle(car/bus/truck/motorcycle/bicycle and colour) Support BestShot Analytics events based on AI engine: Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Tampering, Shock detection, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection		Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection, Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Virtual area(Appear/Disappear)
Business Intelligence	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap		—
Alarm I/O	—	—		In/Out 2 configurable I/O ports Support extra alarm I/O via optional I/O box
Audio I/O	—	Selectable(Mic in/Line in/Built-in mic) / Line out		Selectable(mic in/line in), Built-in mic Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG	H.265/H.264: Main/High, MJPEG		H.265/H.264: Main/Baseline/High, MJPEG
WiseStream	Manual(5ea area), WiseStream III (Based on AI engine)	Manual(5ea area), WiseStream III (Based on AI engine)		WiseStream III
Streaming	Unicast(20 users) / Multicast / Multiple streaming (Up to 5 profiles)	Unicast(20 users) / Multicast, Multiple streaming(Up to 5profiles)		Unicast Up to 20 users Multicast Support Multiple Streaming Up to 10 profiles
Edge Storage	—	Micro SD/SDHC/SDXC 1slot 256GB		Micro SD/SDHC/SDXC Max. 1TB x 1slot
Application Programming Interface	ONVIF Profile S/T/M SUNAPI(HTTP API), Hanwha Vision Open Platform	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Hanwha Vision Open Platform		ONVIFS/G/M/T Others SUNAPI(HTTP API), Hanwha Vision Open Platform
Operating Temperature / Humidity	-30° C~-+55° C(-22° F ~+131° F) 0~95% RH(non-condensing) * Start up should be done at above -30° C	-40° C ~+55° C (-40° F ~+131° F) / 0~100% RH(Condensing) * Start up should be done at above -30° C, Humidity control with AIR vent		-10° C~-+55° C(+14° F~+131° F) 0~95% RH(non-condensing) Humidity control with AIR vent
Certification	IP66, IK10	IP66, IK10		IP6K9K, IK11, NEMA 250 type 4X, IP66, IP69
Power Consumption	PoE: Max 9.50W, typical 5.30W	PoE: Max 7.2W, typical 4.2W		PoE: Max 12.95W, typical 9.7W DC : Max 12.7W, typical 9.0W
Product Dimensions / Weight	ø 110.5 x 215mm(ø 4.35x8.46"), 4,770g(10.51 lb)	106x105x55mm(4.17x4.13x2.17"), 466g(1.03 lb)		198.3(W)x104.8(H)x198.6(D)mm (7.87"x4.13"x7.82"), 1,935g (4.27lb)

AI ANPR Camera

50



PNO-A9311RLP
8MP 31x AI LPR IR Bullet Camera



PNO-A9081RLP
8MP AI LPR IR Bullet Camera



PNV-A9081RLP
8MP AI LPR IR Vandal Dome Camera

Imaging Device	1/1.8" CMOS		
Resolution / Max. Frame Rate	8MP / 30fps		
Min. Illumination	Colour: 0.075Lux(F1.36, 1/30sec, 30IRE) BW: 0.0075Lux(F1.36, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour(1/30sec, 30IRE) 0.05 BW(1/30sec, 30IRE) 0.005	
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		
Focal Length (Zoom Ratio)	6.91~214.7mm (31x)	4.5~10mm(2.2x)	
Angular Field of View	H: 60.92° (Wide)~2.2° (Tele) V: 35.26° (Wide)~1.24° (Tele) D: 69.18° (Wide)~2.52° (Tele)	H: 101.4° (Wide)~45.5° (Tele) V: 53.6° (Wide)~25.5° (Tele) D: 120.7° (Wide)~52.3° (Tele)	
Pan / Tilt / Rotate	–	–	0° ~360° / –45° ~85° / 0° ~355°
IR Viewable Length	WiseIR 70m(229.66ft)	WiseIR 30m(98.42ft)	30m(98.42ft)
Day & Night	Auto(ICR)		
Wide Dynamic Range	120dB	120dB	
Digital Noise Reduction	SSNR V		
Digital Image Stabilization	Support(built-in gyro sensor)	Support(built-in gyro sensor)	
Analytics	–	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection	
Business Intelligence	–		
Alarm I/O	2 configurable I/O ports, DC 12V output (Max. 50mA)	1/1	
Audio I/O	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: Main/High, MJPEG	
WiseStream	Manual(5ea area), WiseStream II	WiseStream II	
Streaming	Up to 6 profiles	Unicast Up to 6 users , Multicast Support, Multiple Streaming Up to 3 profiles	
Edge Storage	Micro SD/SDHC/SDXC 1slot (32GB card preinstalled)		
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API)	ONVIF Profile S/G/T SUNAPI(HTTP API)	
Operating Temperature / Humidity	–40° C ~+55° C(–40° F ~+131° F) / 0~90%RH(Non–condensing) * Start up should be done at above –30° C	–40° C ~+55° C(–40° F ~+131° F) / 0~90%RH(Non–condensing) * Start up should be done at above –30° C	
Certification	IP66, IP67, IK 10, NEMA4X	–	
Power Consumption	PoE+: Max 25.5W, typical 14.0W 12VDC: Max 24.0W, typical 12.7.W	PoE+: Max 20.0W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W	
Speed Description	High Speed	Low to Moderate Speed	
Lane Coverage	Up to 2 lanes (5m/18ft Wide)	1 Lane 3.6m/12ft wide (with built in IR) / 2 Lanes 8.1m/26ft wide (with built in IR)	
Speed Limit	Up to 130kmh (80mph)	Up to 70kmh (45mph) (with built in IR) / Up to 40kmh (25mph) (with built in IR)	
Vehicle Recognition	Make : 100+, Model : 4700+, Colour : 11 colours		
Product Dimensions / Weight	ø 136.2x358.7mm(ø 5.36x14.12") (Without sunshield), 3,200g(7.05lb)	ø 91.0x368.6mm (3.58" x 14.51") (Without sunshield), 2,480g (5.47lb)	ø 180x125mm(7.09x4.92"), 1,900g (4.19lb)

AI Camera

51



PNV-A6081R-E1T
2MP Camera with 1TB Rugged SSD



PNV-A6081R-E2T
2MP Camera with 2TB Rugged SSD

Imaging Device	1/2" CMOS	
Resolution / Max. Frame Rate	2MP/120fps	
Min. Illumination	Colour(1/30sec, 30IRE) 0.007 BW(1/30sec, 30IRE) 0.0007	
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation	
Focal Length (Zoom Ratio)	4.38~9.33mm(2.13x)	
Angular Field of View	H: 104° (Wide)~44° (Tele) V: 55° (Wide)~24° (Tele) D: 124° (Wide)~51° (Tele)	
Pan / Tilt / Rotate Range	0° ~360° / 0° ~85° / 0° ~355°	
IR Viewable Length	40m(131.23ft)	
Day & Night	Auto(ICR)	
Wide Dynamic Range	120dB	
Digital Noise Reduction	SSNR V , WiseNR II (Based on AI engine)	
Digital Image Stabilization	-	
Analytics	Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	
Business Intelligence	-	
Alarm I/O	Selectable(mic in/line in), Line out	
Audio I/O	-	
Video Compression	H.265/H.264: Main/High, MJPEG	
WiseStream	WiseStream III	
Streaming	Unicast Up to 6 users Multicast Support Multiple Streaming Up to 5 profiles	
Edge Storage	Micro SD/SDHC/SDXC None SSD 1TB included(WAVE pre-installed), Possible to register up to 6 camera(Host+5 camera)	Micro SD/SDHC/SDXC None SSD 2TB included(WAVE pre-installed), Possible to register up to 6 camera(Host+5 camera)
Application Programming Interface	ONVIF Profile S/T/M, SUNAPI(HTTP API)	
Operating Temperature / Humidity	Temperature -30° C ~+55° C(-22° F ~+131° F) Humidity 0~95% RH(non-condensing) Others Start up should be done at above -20° C, Humidity control with AIR vent	
Certification	IP66, IP67, IP6K9K, IK10, NEMA 250 type 4X	
Power Consumption	PoE+: Max 19.2W, typical 14.4W / 12VDC: Max 17.5W, typical 12.7W	
Product Dimensions / Weight	ø 180x130mm(ø 7.09x5.12"), 1,900g(4.19 lb)	

BCR Camera



TNS-9040IBC
Dual Sensor BCR Camera



TNS-9050IBC
Dual Sensor BCR Camera



TNS-9060IBC
Dual Sensor BCR Camera

Imaging Device	Global Shutter Mono 1" CMOS / Global Shutter Colour 1" CMOS		
Resolution / Max. Frame Rate	Mono: Max 4096x2160, Max 20fps Colour: Max 4096x2160, Max 20fps		
Min. Illumination	-		
Video Out	-		
Focal Length (Zoom Ratio)	16mm	25mm	35mm
Angular Field of View	Mono: H47.5° / V26.9° / D53.2° Colour: H47.5° / V26.9° / D53.2°	Mono: H30.4° / V16.6° / D34.2° Colour: H30.4° / V16.6° / D34.2°	Mono: H21.5° / V11.5° / D24.2° Colour: H21.5° / V11.5° / D24.2°
Pan / Tilt / Rotate Range	-		
IR Viewable Length	-		
Day & Night	-		
Wide Dynamic Range	-		
Digital Noise Reduction	SSNRV		
Digital Image Stabilization	-		
Analytics	Barcode recognition - Barcode type: 1D Code, Code128 / CODE39 / CODE93 / Codabar / ITF(Interleaved 2 of 5) / UPC / EAN 2D Code, QR code / DataMatrix / Maxicode / PDF417		
Business Intelligence	-		
Alarm I/O	Out 1EA		
Audio I/O	-		
Video Compression	H.265/H.264: Main/High, MJPEG		
WiseStream	-		
Streaming	Unicast(6 users) / Multicast Mono: (1) 4096x2160 @ 15/18/20fps all codec Colour: (1) 4096x2160 @ 15/18/20fps all codec (2) 640x360 @ 15/18/20fps all codec		
Edge Storage	-		
Application Programming Interface	-	SUNAPI(HTTP API) Wisenet Open Platform ONVIF Profile M	-
Operating Temperature / Humidity	-	-40° C~+55° C(-40° F~+131° F) / 0~95% RH * Start up should be done at above -30° C NEMA TS-2: 74° C - / 0~95% RH	-
Certification	-	IP67, IP66, IK10(Exclude Window), NAME 4X	-
Power Consumption	Max 28.6W, Typical 13.7W * Max: LED On Typical: LED Off	Max 28.6W, Typical 13.7W * Max: LED On Typical: LED Off	Max 35.4W, Typical 13.7W * Max: LED On Typical: LED Off
Product Dimensions / Weight	Camera: 218x104.1x127.1mm, 1,897g LED: 255.8x73.8x49.8mm, 996g Total: 255.8x181x127.1mm, 3,438g(with install bracket)		

BCR Camera



TNS-7000M
3MP Mono BCR Camera



SLM-5M06
BCR Camera 6mm Lens



SLM-5M08
BCR Camera 8mm Lens



SLM-5M12
BCR Camera 12mm Lens



SLM-5M16
BCR Camera 16mm Lens



SLM-5M25
BCR Camera 25mm Lens



SBO-BPM0
BCR Camera Bracket

Imaging Device	1/3" / CMOS		1/3.1"~1/1.8" / CMOS				1/3.1"~1/1.8" / CMOS	-
Resolution / Max. Frame Rate	3MP / 50fps		3M~5M / -				3M~5M / -	-
Min. Illumination	-							
Video Out	-							
Focal Length (Zoom Ratio)	-	6mm	8mm	12mm	16mm	25mm	-	
Angular Field of View	-	H: 42.0° ~58.4° V: 32.1° ~ 50.1° D: 51.3° ~ 72.2°	H: 32.1° ~ 45.5° V: 24.4° ~ 38.7° D: 39.6° ~ 57.3°	H: 21.7° ~ 31.2° V: 16.4° ~ 26.3° D: 27.0° ~ 40.0°	H: 16.4° ~ 23.7° V: 12.3° ~ 19.9° D: 20.4° ~ 30.6°	H: 10.5° ~ 15.3° V: 7.9° ~ 12.8° D: 13.1° ~ 19.8°	-	
Pan / Tilt / Rotate Range	-							0 ~ 120°
IR Viewable Length	-							
Day & Night	-							
Wide Dynamic Range	-							
Digital Noise Reduction	-							
Digital Image Stabilization	-							
Analytics	- 1D Code (Code128 / CODE39 / CODE93 / Codabar / ITF (Interleaved 2 of 5) / UPC / EAN) - 2D Code (QRcode / DataMatrix / Maxicode / PDF417)		-					
Business Intelligence	-							
Alarm I/O	2/2	-						
Audio I/O	-							
Video Compression	H.265/H.264: Main/High, MJPEG	-						
WiseStream	-							
Streaming	Unicast (Up to 6 users) Multicast (Support) Multiple Streaming (Up to 3 profiles)	-						
Edge Storage	Micro SD/SDHC/SDXC Max. 256GB x 1slot	-						
Application Programming Interface	ONVIF Profile M SUNAPI(HTTP API), Hanwha Vision Open Platform	-						
Operating Temperature / Humidity	-40° C~+55° C(-40° F~+131° F) 0~95% RH(non-condensing) *Start up should be done at above -30° C		-20° C~+60° C(-4° F~+140° F)				-20° C~+60° C (-4° F~+140° F)	-
Certification	IP66, IP67, IK10		-					
Power Consumption	Max 12.9W, Typical 6.7W * Max: LED On Typical: LED Off		-					
Product Dimensions / Weight	W74.4mm x H77.4mm x D59.4mm/ 420g	Ø29x51.41mm/ 67.34g	Ø29x45.94mm/ 56.2g	Ø29x46.11mm/ 54.22g	Ø29x48.8mm/ 53.73g	Ø29x49.29mm/ 48.02g	W55mm x H63mm x D59mm / 190g	

BCR Camera

54

							
	SPI-BWW0 White LED Module for 6mm lens	SPI-BWM1 White LED Module for 8mm lens	SPI-BWM0 White LED Module for 12mm lens	SPI-BWN0 White LED Module for 16/25mm lens	SPI-BRW0 Red LED Module for 6mm lens	SPI-BRM1 Red LED Module for 8mm lens	SPI-BRM0 Red LED Module for 12mm lens
Imaging Device	-						
Resolution / Max. Frame Rate	3MP						
Min. Illumination	-						
Video Out	-						
Focal Length (Zoom Ratio)	6mm	8mm	12mm	16mm/25mm	6mm	8mm	12mm
Angular Field of View	-						
Pan / Tilt / Rotate Range	FWHM : 60° 10~% : 88°	FWHM : 43° 10~% : 70°	FWHM : 25° 10~% : 46°	FWHM : 12° 10~% : 32°	FWHM : 60° 10~% : 88°	FWHM : 43° 10~% : 70°	FWHM : 25° 10~% : 46°
IR Viewable Length	-						
Day & Night	-						
Wide Dynamic Range	-						
Digital Noise Reduction	-						
Digital Image Stabilization	-						
Analytics	-						
Business Intelligence	-						
Alarm I/O	-						
Audio I/O	-						
Video Compression	-						
WiseStream	-						
Streaming	-						
Edge Storage	-						
Application Programming Interface	-						
Operating Temperature / Humidity	-40° C ~ +55° C (TBD) / 0~95% RH -40° C ~ +60° C (TBD) / Less than 95% RH						
Certification	IP66/IP67						
Power Consumption	6.9W						
Product Dimensions / Weight	W101.2mm x D53.8mm x H78.2mm / 200g						

BCR Camera

55

						
	SPI-BRN0 Red LED Module for 16/25mm lens	SPI-BBW0 Blue LED Module for 6mm lens	SPI-BBM1 Blue LED Module for 8mm lens	SPI-BBM0 Blue LED Module for 12mm lens	SPI-BBN0 Blue LED Module for 16/25mm lens	SPF-BCB0 BCR Camera Clear Fiter Cover
Imaging Device	-					
Resolution / Max. Frame Rate	3MP					-
Min. Illumination	-					
Video Out	-					
Focal Length (Zoom Ratio)	16/25mm	6mm	8mm	12mm	16/25mm	-
Angular Field of View	-					
Pan / Tilt / Rotate Range	FWHM : 17° 10-% : 32°	FWHM : 60° 10-% : 88°	FWHM : 43° 10-% : 70°	FWHM : 25° 10-% : 46°	FWHM : 17° 10-% : 32°	-
IR Viewable Length	-					
Day & Night	-					
Wide Dynamic Range	-					
Digital Noise Reduction	-					
Digital Image Stabilization	-					
Analytics	-					
Business Intelligence	-					
Alarm I/O	-					
Audio I/O	-					
Video Compression	-					
WiseStream	-					
Streaming	-					
Edge Storage	-					
Application Programming Interface	-					
Operating Temperature / Humidity	-40° C ~ +55° C (TBD) / 0 ~ 95% RH -40° C ~ +60° C (TBD) / Less than 95% RH					-
Certification	IP66/IP67					-
Power Consumption	18 W	6.9 W			18 W	-
Product Dimensions / Weight	W101.2 x D53.8 x H78.2 / 200g					W101.2mm * H78.2mm * D42mm / 70g



SPF-BDB0
BCR Camera Diffusion Front Cover



SPF-BPB0
BCR Camera Polarized Front Cover



SPP-C12020P
M12 Power cable 2M (6.6ft)



SPP-C12050P
M12 Power cable 5M (16.4ft)



SPP-C12100P
M12 Power cable 10M (32.8ft)

Imaging Device	-			
Resolution / Max. Frame Rate	-			
Min. Illumination	-			
Video Out	-			
Focal Length (Zoom Ratio)	-			
Angular Field of View	-			
Pan / Tilt / Rotate Range	-			
IR Viewable Length	-			
Day & Night	-			
Wide Dynamic Range	-			
Digital Noise Reduction	-			
Digital Image Stabilization	-			
Analytics	-			
Business Intelligence	-			
Alarm I/O	-			
Audio I/O	-			
Video Compression	-			
WiseStream	-			
Streaming	-			
Edge Storage	-			
Application Programming Interface	-			
Operating Temperature / Humidity	-	-20°C~-80°C		
Certification	-	IP67		
Power Consumption	-			
Product Dimensions / Weight	W101.2mm x H78.2mm x D42mm / 70g	D: Ø 6.8mm±0.20 x L: 2M(6.6ft)	D: Ø 6.8mm±0.20 x L: 5M(16.4ft)	D: Ø 6.8mm±0.20 x L: 10M(32.8ft)



SPP-C08020E
M12-RJ45 Ethernet cable 2M (6.6ft)



SPP-C08050E
M12-RJ45 Ethernet cable 5M (16.4ft)



SPP-C08100E
M12-RJ45 Ethernet cable 10M (32.8ft)



SNC-PS-60-EU
BCR 24VDC PSU with EU Plug



SNC-PS-60-UK
BCR 24VDC PSU with UK Plug

Imaging Device	-		
Resolution / Max. Frame Rate	-		
Min. Illumination	-		
Video Out	-		
Focal Length (Zoom Ratio)	-		
Angular Field of View	-		
Pan / Tilt / Rotate Range	-		
IR Viewable Length	-		
Day & Night	-		
Wide Dynamic Range	-		
Digital Noise Reduction	-		
Digital Image Stabilization	-		
Analytics	-		
Business Intelligence	-		
Alarm I/O	-		
Audio I/O	-		
Video Compression	-		
WiseStream	-		
Streaming	-		
Edge Storage	-		
Application Programming Interface	-		
Operating Temperature / Humidity	-10° to 50° C Storage Temperature Range -20° to 70° C 0% to 90% RH, Non-Condensing	Operating Temperature 0 ~+40° C Humidity Operating/Storage Non-Condensing 5~95%RH	Operating Temperature 0 ~+40° C Humidity Operating/Storage Non-Condensing 5~95%RH
Certification	IP68, UL Listed: CE, RoHS, IEEE 802.3bt PoE++, REACH, UKCA, Trade Agreements Act (TAA)	Emissions EN55032 / EN55035 / EN55032 / EN55035, FCC Part 15 Class B, NDAA Compliant	Emissions EN55032 / EN55035 / EN55032 / EN55035, FCC Part 15 Class B, NDAA Compliant
Power Consumption	-		
Product Dimensions / Weight	D: 6.5mm x L: 2M(6.6ft)	D: 6.5mm x L: 5M(16.4ft) D: 6.5mm x L: 10M(32.8ft)	34 x 120 x 50 mm (H x W x D), 0.24 kg 34 x 120 x 50 mm (H x W x D), 0.24 kg



XNO-9082R
8MP IR Bullet Camera



XND-9082RV
8MP IR Dome Camera



XND-9082RF
8MP IR Dome Camera



XNO-9082R
8MP IR Bullet Camera



XND-8082RV
6MP IR Dome Camera

Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	8MP / 30fps			6MP / 30fps
Min. Illumination	Colour(1/30sec, 30IRE) 0.05 BW(1/30sec, 30IRE) 0.005			
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.			
Focal Length (Zoom Ratio)	2.8~8.4mm(3x) varifocal			
Angular Field of View	H: 114° (Wide) ~40° (Tele) V: 62° (Wide) ~22° (Tele) D: 133° (Wide) ~46° (Tele)			
Pan / Tilt / Rotate Range	0° ~360° / 0° ~100° / 0° ~360°	0° ~360° / 0° ~85° / 0° ~355°		0° ~360° / 0° ~100° / 0° ~360° 0° ~360° / 0° ~85° / 0° ~355°
IR Viewable Length	WiseIR 40m(131.23ft)			
Day & Night	Auto(ICR)			
Wide Dynamic Range	extremeWDR(120dB)			
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support	Support(built-in gyro sensor) Support		
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face/upper body detection, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking			
Business Intelligence	People counting, Queue management, Heatmap			
Alarm I/O	2 configurable I/O ports			
Audio I/O	Selectable(mic in/line in) / Line out	Selectable(mic in/line in/built-in mic) / Line out	Selectable(mic in/line in) / Line out	Selectable(mic in/line in/built-in mic) / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	WiseStream II			
Streaming	Unicast Up to 20 users / Multicast Support / Multiple Streaming Up to 10 profiles			
Edge Storage	Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)			
Application Programming Interface	ONVIF SUNAPI(HTTP API), Hanwha Vision Open Platform			ONVIF S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform
Operating Temperature / Humidity	-50° C ~ +60° C (-58° F ~+140° F) 0~95% RH(non-condensing) * Start up should be done at above -30° C	-25° C ~+60° C (-13° F ~+140° F) 0~95% RH(non-condensing)		-25° C ~+60° C (-13° F ~+140° F) / 0~95% RH(non-condensing)
Certification	IP66, IP67, NEMA4X, IK10	IP52, IK10	IP52, IK10	IP66, IP67, IK10, NEMA 250 type 4X IP52, IK10
Power Consumption	PoE: Max 12.95W, typical 10.5W 12VDC: Max 12.5W, typical 9.4W 24VAC: Max 14.5W, typical 11.2W Power redundancy failover	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W		PoE: Max 12.95W, typical 10.5W 12VDC: Max 12.5W, typical 9.4W 24VAC: Max 14.5W, typical 11.2W PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W
Product Dimensions / Weight	ø 91x368.6mm(ø 3.85x14.51"), 2,200g(4.85 lb)	ø 160x125mm(ø 6.30x4.92"), 1,600g(3.53 lb)	ø 205x163mm(ø 8.07x6.42"), 1,950g(4.29 lb)	ø 91x368.6mm(ø 3.85x14.51"), 2,200g(4.85 lb) ø 160x125mm(ø 6.30x4.92"), 1,600g(3.53 lb)



XND-8082RF
6MP IR Dome Camera



XNO-8082R
6MP IR Bullet Camera



XNV-8080R
5MP IR Vandal Dome Camera



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

Imaging Device	1/2.8" CMOS		1/1.8" CMOS	
Resolution / Max. Frame Rate	6MP / 30fps		5MP / 30fps	
Min. Illumination	Colour(1/30sec, 30IRE) 0.05 BW(1/30sec, 30IRE) 0.005		Colour(1/30sec, 30IRE) 0.07 BW(1/30sec, 30IRE) 0.007	Colour(1/30sec, 30IRE) 0.16 BW(1/30sec, 30IRE) 0.016
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.			
Focal Length (Zoom Ratio)	2.8~8.4mm(3x)		3.9 ~ 9.4mm (2.4x)	3.7mm (XNV-8020R) 4.6mm (XNV-8030R) 7.0mm (XNV-8040R)
Angular Field of View	H: 114° (Wide)~40° (Tele) V: 62° (Wide)~22° (Tele) D: 133° (Wide)~46° (Tele)		H: 92.1° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (Tele) D: 119.9° (Wide) ~ 48.6° (Tele)	H: 98° / V: 72° / D: 127° (XNV-8020R) H: 77.9° / V: 57.9° / D: 98.7° (XNV-8030R) H: 50.7° / V: 37.8° / D: 63.8° (XNV-8040R)
Pan / Tilt / Rotate Range	0° ~360° / 0° ~ 85° / 0° ~355°	0° ~360° / 0° ~100° / 0° ~360°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	
IR Viewable Length	WiseIR 40m(131.23ft)		50m (164.04ft)	30m(98.42ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	extremeWDR(120dB)		120dB	
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support			
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face/upper body detection, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking		Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking	
Business Intelligence	People counting, Queue management, Heatmap		-	People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports		1 / 1	
Audio I/O	Selectable(mic in/line in) / Line out			
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	WiseStream II			
Streaming	Unicast Up to 20 users / Multicast Support / Multiple Streaming Up to 10 profiles			
Edge Storage	Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)		Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)	
Application Programming Interface	ONVIF S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform			
Operating Temperature / Humidity	-25° C~+60° C(-13° F~+140° F) / 0~95% RH(non-condensing)	-50° C~+60° C(-58° F~+140° F) 0~95% RH(non-condensing) * Start up should be done at above -30° C	-40°C~+55°C(-40°F ~+131°F) / 0~90% RH(non-condensing)	-30°C~+55°C(-22°F~+131°F) / 0~90% RH(non-condensing) Others Start up should be done at above -20°C
Certification	IP52, Plenum rated, IK10	IP66, IP67, IK10, NEMA 250 type 4X	IP66, IP67, IK10, NEMA 250 type 4X	IEC 60529 IP66, IEC 60529 IP67, IEC 62262 IK10
Power Consumption	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W	PoE: Max 12.95W, typical 10.5W 12VDC: Max 12.5W, typical 9.4W 24VAC: Max 14.5W, typical 11.2W	PoE :Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE :Max 9W 12VDC: Max 8W
Product Dimensions / Weight	ø 205x163mm(ø 8.07x6.42"), 1,950g(4.29 lb)	ø 91x368.6mm(ø 3.85x14.51"), 2,200g(4.85 lb)	ø 160 x 118.5mm (ø 6.3" x 4.67") 1,010g (2.23lb)	ø 120 x 97.5mm (ø 4.72" x 3.84") 615g (1.36lb)



XND-8080RV/8080R
5MP IR Dome Camera



XND-8020R/8030R/8040R
5MP IR Dome Camera



XND-8020F
5MP Flush Mount Dome Camera



XNO-8080R
5MP IR Bullet Camera

Imaging Device	1/1.8" CMOS			
Resolution / Max. Frame Rate	5MP / 30fps			
Min. Illumination	Colour(1/30sec, 30IRE) 0.07 BW(1/30sec, 30IRE) 0.007	Colour(1/30sec, 30IRE) 0.16 BW(1/30sec, 30IRE) 0.016	Colour : 0.16Lux (1/30sec, 30IRE) BW : 0.16Lux (1/30sec, 30IRE)	Colour: 0.07Lux (1/30sec, 30IRE) BW: 0.007Lux (1/30sec, 30IRE)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.
Focal Length (Zoom Ratio)	3.9 ~ 9.4m (2.4x)	3.7mm (XND-8020R) 4.6mm (XND-8030R) 7.0mm (XND-8040R)	3.7mm	3.7 ~ 9.4mm (2.5x) motorized varifocal
Angular Field of View	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)	H : 98° / V : 72° / D : 126° (XND-8020R) H: 77.9° / V: 57.9° / D: 98.7° (XND-8030R) H: 50.7° / V: 37.8° / D: 63.8° (XND-8040R)	H : 97.5° / V : 71.9° / D : 126.2°	H : 100.2° (Wide) ~ 38.7° (Tele) V : 72.2° (Wide) ~ 29° (Tele) D : 132.0° (Wide) ~ 48.6° (Tele)
Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°		0° ~ 355° / 0° ~ 47° / 0° ~ 353°	
IR Viewable Length	30m (98.43ft)		-	
Day & Night	Auto (ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	SSNRV			
Digital Image Stabilization	Support			
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking			
Business Intelligence	-	People counting, Queue management, Heatmap		-
Alarm I/O	1 / 1		-	
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out		Selectable (mic in/line in) / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	WiseStream II			
Streaming	Unicast Up to 20 users / Multicast Support / Multiple Streaming Up to 10 profiles			
Edge Storage	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)		Micro SD/SDHC/SDXC Max. 256GB x 1slot	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)
Application Programming Interface	ONVIF S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform		ONVIF S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform	ONVIF Profile S/G/T, SUNAPI Hanwha Vision Open Platform
Operating Temperature / Humidity	-10° C~-55° C(+14° F~+131° F) / 0~90% RH(non-condensing)		-10°C~-55°C(+14°F~+131°F) 0~90% RH(non-condensing)	-40°C~-55°C(-40° F~+131° F) 0~90% RH(non-condensing)
Certification	IEC 62262 IK08		-	
Power Consumption	PoE : Max 10W 12VDC : Max 9W	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W
Product Dimensions / Weight	ø 140.8 x 113mm (ø 5.54"x 4.45") 628g (1.38lb)	ø 110 x 90mm (ø 4.33" x 3.54") 380g (0.84lb)	ø 98.9x129.1mm(3.9"x5.1") 275g(0.6 lb)	ø 91 x 368.6mm (ø 6.3" x 4.67") 2,180g (4.81lb)



XNO-8020R/8030R/8040R
5MP IR Bullet Camera



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



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



XNV-6080R
2MP IR Vandal Dome Camera

Imaging Device	1/1.8" CMOS		1/2.3" CMOS	1/1.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	5MP / 30fps		12MP / 30fps	6MP / 30fps	2MP / 60fps
Min. Illumination	Colour: 0.16Lux (1/30sec, 30IRE) BW: 0.016Lux (1/30sec, 30IRE)		Colour: 0.39Lux (1/30sec, 30IRE) BW: 0.039Lux (1/30sec, 30IRE)	Colour: 0.1Lux (1/30sec, 30IRE) BW: 0.01Lux (1/30sec, 30IRE)	Colour: 0.015Lux (1/30sec, 30IRE) BW: 0.0015Lux (1/30sec, 30IRE)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.				
Focal Length (Zoom Ratio)	3.7mm fixed (XNO-8020R) 4.6mm fixed (XNO-8030R) 7.0mm fixed (XNO-8040R)		1.08mm	1.6mm	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	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: 187° / V: 187° / D: 187°	H: 192° / V: 192° / D: 192°	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)
Pan / Tilt / Rotate Range	-				0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)		WiseIR 10m(32.8ft)	15m (49.21ft)	50m (164.04ft)
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB				150dB
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	Support		-		Support
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking			Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking
Business Intelligence	People counting, Queue management, Heatmap				-
Alarm I/O	1 / 1		2 configurable I/O ports	1 / 1	
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in), Built-in mic / Line out		Selectable (mic in/line in) / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG				
WiseStream	WiseStream II				
Streaming	Unicast up to 20 users / Multicast Support / Multiple Streaming up to 10 profiles				
Edge Storage	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)			Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)	
Application Programming Interface	ONVIF Profile S, G, T, SUNAPI Hanwha Vision Open Platform				
Operating Temperature / Humidity	-30℃~-55℃(-22° F~+131° F) 0~90% RH(non-condensing) Start up should be done at above -20℃		-40℃~+60℃(-40° F~+140° F) 0~95% RH(non-condensing)	-10℃~+55℃(+14°F~+131°F) 0~90% RH(non-condensing) (XNF-8010R) -40℃~+55℃(-40°F~+131°F) 0~90% RH(non-condensing) (XNF-8010RV/8010RVM)	
Certification	IP67, IP66, NEMA 250 type 4X, IK10		IP66, IK10, NEMA 250 type 4X, EN50155 class T3 (XNF-9010RVM only)	IP66, IK10 (XNF-8010RV/8010RVM)	
Power Consumption	PoE : Max 10.3W 12VDC : Max 9.3W		PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W	PoE : Max 12W, 12VDC : Max 11W (XNF-8010R) PoE : Max 12.95W, 12VDC : Max 12W (XNF-8010RV/8010RVM)	
Product Dimensions / Weight	ø 70 x 296mm (ø 2.76" x 11.65") 1,220g (2.69lb)		ø 160 x 72mm (ø 6.38" x 2.83") 1,100g (2.43lb)	ø 146 x 54.8mm (ø 5.75" x 2.16") 730g (1.61lb) (XNF-8010R) ø 146 x 65.8mm (ø 5.75" x 2.59") 785g (1.73lb) (XNF-8010RV) 790g (1.74lb) (XNF-8010RVM)	



XNV-6080RSA
2MP Stainless IR Vandal Dome Camera



XNV-6080
2MP Vandal Dome Camera



XNV-6022R/6022RM
2MP Mobile IR Flat Camera



XNV-6020R
2MP IR Vandal Dome Camera



XNV-6013M
2MP Mobile Camera

Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	2MP / 60fps				
Min. Illumination	Colour: 0.015Lux (1/30sec, 30IRE) BW: 0.0015Lux (1/30sec, 30IRE)		Colour: 0.04Lux (1/30sec, 30IRE) BW: 0.004Lux (1/30sec, 30IRE)	Colour: 0.015Lux (1/30sec, 30IRE) BW: 0.0015Lux (1/30sec, 30IRE)	Colour: 0.04Lux (1/30sec, 30IRE) BW: 0.04Lux (1/30sec, 30IRE)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.
Focal Length (Zoom Ratio)	2.8 ~ 12mm (4.3x) motorized varifocal		3.6mm	4mm	2.8mm
Angular Field of View	H: 120° (Wide) ~ 27° (Tele) V: 63° (Wide) ~ 15° (Tele) D: 143° (Wide) ~ 32° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32.0° (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 Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°		± 5° / 0° ~ 67° / ± 90°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	± 5° / ± 10° / ± 90°
IR Viewable Length	50m (164.04ft)	–	15m (49.21ft)	30m (98.43ft)	–
Day & Night	Auto (ICR)				Auto (Electrical)
Wide Dynamic Range	150dB				
Digital Noise Reduction	SSNRV				
Digital Image Stabilization	Support				Support(built-in gyro sensor)
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking		Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking
Business Intelligence	–			People counting, Queue management, Heatmap	–
Alarm I/O	1 / 1		–	1 / 1	–
Audio I/O	Selectable (mic in/line in) / Line out		Selectable(mic in/line in), Built-in mic / Line Out	Selectable(mic in/line in) / Line out	
Video Compression	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)		Micro SD/SDHC/SDXC Max. 256GB x 1slot	Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)	
WiseStream	WiseStream II				
Streaming	Unicast Up to 20 users / Multicast Support / Multiple Streaming Up to 10 profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform	ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform
Operating Temperature / Humidity	-40° C~-+55° C(-40° F~-+131° F) 0~90% RH(non-condensing)		-30° C~-+55° C(-22° F~-+131° F) 0~90% RH(non-condensing)		-40° C~-+60° C(-40° F~-+140° F) 0~90% RH(non-condensing)
Certification	IP66, NEMA 250 type 4X, IP6K9K, IK 10+	IP67, IP66, NEMA 250 type 4X, IK10	IP66, IK 10, NEMA 250 type 4X	IP67, IP66, IK 10	IP67, IP6K9K, IK10, NEMA 250 type 4X
Power Consumption	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 7.8W 12VDC : Max 7W 24VAC : Max 8.2W	PoE : Max 6.7W	PoE : Max 9W 12V DC : Max 8W	PoE : Max 7.2W
Product Dimensions / Weight	ø 160 x 120.5mm (ø 6.38" x 4.74") 2.8kg (6.17lb)	ø 160 x 118.5mm (ø 6.3" x 4.67") 985g (2.17lb)	W 98.9 x H 52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	ø 120 x 97.5mm (ø 4.72" x 3.84") 615g (1.36lb)	W 103.7 x H 72.3 x D 126.8mm (4.08" x 2.85" x 4.99") 478g (1.04lb)



XNV-6012M/6012
2MP Mobile Flat Camera



XNV-6011
2MP Vandal Dome Camera



XNV-6010
2MP Vandal Dome Camera



XND-6080V/6080
2MP Dome Camera

Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	2MP / 60fps			
Min. Illumination	Colour: 0.04Lux (1/30sec, 30IRE) BW: 0.004Lux (1/30sec, 30IRE)	Colour: 0.055Lux (1/30sec, 30IRE) BW: 0.055Lux (1/30sec, 30IRE)	Colour: 0.055Lux (1/30sec, 30IRE) BW: 0.0055Lux (1/30sec, 30IRE)	Colour: 0.015Lux (1/30sec, 30IRE) BW: 0.015Lux (1/30sec, 30IRE)
Video Out	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		
Focal Length (Zoom Ratio)	2.4mm	2.8mm	2.4mm	2.8 ~ 12mm (4.3x)
Angular Field of View	H : 135.4° / V : 71.2° / D : 161.6°	H : 112° / V : 62° / D : 130°	H : 139° / V : 73° / D : 167°	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)
Pan / Tilt / Rotate Range	± 5° / 0 ~ 67° / ± 90°	0° ~ 353° / 0° ~ 59° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	
IR Viewable Length	-			
Day & Night	Auto (Electrical)		Auto (ICR)	
Wide Dynamic Range	150dB			
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support			
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction), Digital auto tracking	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction), Digital auto tracking	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction), Digital auto tracking	
Business Intelligence	-	People counting, Queue management, Heatmap		-
Alarm I/O	-		1 / 1	
Audio I/O	Selectable (mic in/line in), Line out	-	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	WiseStream II			
Streaming	Unicast Up to 20 users / Multicast Support / Multiple Streaming Up to 10 profiles			
Edge Storage	Micro SD/SDHC/SDXC Max. 256GB x 1slot		Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)
Application Programming Interface	ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform
Operating Temperature / Humidity	-30° C~+55° C(-22° F~+131° F) 0~90% RH(non-condensing)			-10° C~+55° C(+14° F~+131° F) 0~90% RH(non-condensing)
Certification	IP66, IK10, NEMA 250 type 4X		IP67, IP66, IK10	IK08
Power Consumption	PoE : Max 6.5W	PoE : Max 6.5W	PoE : Max 6W / 12V DC : Max 5.5W	PoE : Max 6.5W / 12VDC : Max 6W
Product Dimensions / Weight	W 98.9 x H 52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	ø 112.8 x 63.7mm (ø 4.44" x 2.51") 420g (0.93lb)	ø 120 x 97.5mm (ø 4.72" x 3.84") 625g (1.38lb)	ø 140.8 x 113mm (ø 5.54" x 4.45") 610g (1.34lb) (XND-6080) 714g (1.57lb) (XND-6080V)



XND-6080RV/6080R
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" CMOS			
Resolution / Max. Frame Rate	2MP / 60fps			
Min. Illumination	Colour: 0.015Lux (1/30sec, 30IRE) BW: 0.0015Lux (1/30sec, 30IRE)		Colour: 0.55Lux (1/30sec, 30IRE) BW: 0.55Lux (1/30sec, 30IRE)	
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.
Focal Length (Zoom Ratio)	2.8 ~ 12mm (4.3x)	4mm	2.8mm	2.4mm
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 88.6° / V : 47.5° / D : 104.8°	H : 107.4° / V : 62.2° / D : 122°	H : 139° / V : 73° / D : 167°
Pan / Tilt / Rotate Range	0° ~ 354° / 0° ~ 67° / 0° ~ 355°		0° ~ 355° / 0° ~ 47° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)		-	
Day & Night	Auto (ICR)		Auto(ICR)	
Wide Dynamic Range	150dB		-	150dB
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support			
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking			
Business Intelligence	-	People counting, Queue management, Heatmap		
Alarm I/O	1 / 1	-	1 / 1	
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Built-in mic / -	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG			
WiseStream	WiseStream II			
Streaming	Unicast Up to 20 users / Multicast Support / Multiple Streaming Up to 10 profiles			
Edge Storage	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)	Micro SD/SDHC/SDXC Max. 256GB x 1slot	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform			
Operating Temperature / Humidity	-10° C~+60° C(+14° F~+140° F)(Max) 0~95% RH(non-condensing)	-10° C~+55° C(+14° F~+131° F) 0~90% RH(non-condensing)	-10° C~+55° C(+14° F~+131° F) 0~90% RH(non-condensing)	
Certification	IK08		-	IK08
Power Consumption	PoE : Max 10W 12VDC : Max 9W	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W	PoE : Max 6.5W 12VDC : Max 6W
Product Dimensions / Weight	ø 140.8 x 113mm (ø 5.54" x 4.45") 624g (1.38lb) (XND-6080R) 724g (1.60lb) (XND-6080RV)	ø 110 x 90mm (ø 4.33" x 3.54") 380g (0.84lb)	ø 98.9 x 129mm (ø 3.89" x 5.08") 275g (0.61lb)	ø 110.0x90.0mm(4.33x3.54") 625g(1.38lb)



XNO-6080R
2MP IR Bullet Camera



XNO-6010R/6020R
2MP IR Bullet Camera



XNB-6000
2MP Box Camera

Imaging Device	1/2.8" CMOS		
Resolution / Max. Frame Rate	2MP / 60fps		
Min. Illumination	Colour: 0.015Lux (1/30sec, 30IRE) BW: 0.0015Lux (1/30sec, 30IRE)	Colour: 0.055Lux (1/30sec, 30IRE) BW: 0.0055Lux (1/30sec, 30IRE)	Colour: 0.015Lux (1/30sec, 30IRE) BW: 0.0015Lux (1/30sec, 30IRE)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		
Focal Length (Zoom Ratio)	2.8 ~ 12mm (4.3x) motorized varifocal	2.4mm (XNO-6010R) 4mm (XNO-6020R)	-
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 139° / V : 73° / D : 167° (XNO-6010R) H : 88.6° / V : 47.5° / D : 104.8° (XNO-6020R)	-
Pan / Tilt / Rotate Range	-	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	
IR Viewable Length	50m (164.04ft)	20m (65.62ft) (XNO-6010R) 30m (98.43ft) (XNO-6020R)	-
Day & Night	Auto (ICR)		
Wide Dynamic Range	150dB		
Digital Noise Reduction	SSNR V		
Digital Image Stabilization	Support		Support(built-in gyro sensor)
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking		
Business Intelligence	-	People counting, Queue management, Heatmap	-
Alarm I/O	1 / 1		
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
WiseStream	WiseStream II		
Streaming	Unicast Up to 20 users Multicast Support Multiple Streaming Up to 10 profiles		
Edge Storage	Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)	Micro SD/SDHC/SDXC Max. 512GB x 2slot(Total 1TB)	Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Hanwha Vision open platform	ONVIF profile S/G/T, SUNAPI, Hanwha Vision open platform	ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform
Operating Temperature / Humidity	-40°C~+55°C(-40°F~+131°F) 0~90% RH(non-condensing)	-10°C~+55°C(+14°F~+131°F) 0~90% RH(non-condensing)	-10°C~+55°C(+14°F~+131°F) 0~90% RH(non-condensing)
Certification	IP67, IP66, NEMA 250 type 4X, IK10		-
Power Consumption	PoE : Max 12.95W 12VDC : Max 12W 24VAC : Max 15W	PoE : Max 9.7W 12VDC : Max 8.8W	PoE : Max 7.5W 12VDC : Max 6.5W 24VAC : Max 8W
Product Dimensions / Weight	ø 91 x 368.6mm (ø 3.58" x 14.51") 2,180g (4.81lb)	ø 70 x 301.5mm (ø 2.76" x 11.87") (XNO-6010R) ø 70 x 296mm (ø 2.76" x 11.65") (XNO-6020R) 1,220g (2.69lb)	73.1(W)x66.6(H)x147.8(D)mm(2.88x2.62x5.82") 420g(0.93lb)



XNB-6002
2MP Remote Head Camera



XNB-6001
2MP Remote Head Camera



SLA-T4680/T4680V
2MP lens for XNB-6001



SLA-T2480/T2480V
2MP lens for XNB-6001



SLA-T1080F
2MP lens for XNB-6001

Imaging Device	-		1/2.8" CMOS		
Resolution / Max. Frame Rate	2MP / 60fps		-		
Min. Illumination	-		Colour: 0.06Lux (1/30sec, 30IRE) BW: 0.06Lux (1/30sec, 30IRE)	Colour : 0.45Lux (F2.0) B/W : 0.45Lux (F2.0)	Colour : 0.03Lux (F1.6)
Video Out	CVBS: 1.0 Vp-p / 75 Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		-		
Focal Length (Zoom Ratio)	-		4.6mm Pinhole	2.4mm fixed	1.6mm fisheye
Angular Field of View	-		H : 73° / V : 39° / D : 85°	H : 138° / V : 73° / D : 165°	H : 187° / V : 113.9°
Pan / Tilt / Rotate Range			-		
IR Viewable Length			-		
Day & Night			-		
Wide Dynamic Range	120dB		-		
Digital Noise Reduction	WiseNR, SSNR V	SSNR V	-		
Digital Image Stabilization	Support		-		
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Digital auto tracking	-		
Business Intelligence	People counting, Queue management, Heatmap		- -		
Alarm I/O	1 / 1		-		
Audio I/O	Selectable(mic in/line in) / Line out		-		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		-		
WiseStream	WiseStream II		-		
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles)	Unicast Up to 20 users Multicast Support Multiple Streaming Up to 10 profiles	-		
Edge Storage	Micro SD/SDHC/SDXC Max. 1TB x 1 slot		-		
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Hanwha Vision Open Platform	ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform	-		
Operating Temperature / Humidity	-10° C~-55° C(+14° F~+131° F) 0~95% RH(non-condensing)		-10° C~-55° C(+14° F~+131° F) Less than 90% RH		
Certification			-		
Power Consumption	PoE: Max 10.5W, typical 6.9W 12VDC: Max 8.6W, typical 5.5W Power redundancy failover	PoE: Max 10.5W, typical 6.9W 12VDC: Max 8.6W, typical 5.5W	-		
Product Dimensions / Weight	131.1(W)x33.5(H)x86(D)mm (5.16x1.32x3.39") 420g(0.93lb)	131.1(W)x33.5(H)x86(D)mm (5.16x1.32x3.39") 420g(0.93lb)	ø 24 x 42mm (ø 0.94" x 1.65") (Lens) 8m (314.96") (Cable) 310g (0.68lb) (SLA-T4680) 30 x 20.2 x 45mm (1.18" x 0.8" x 1.77") (Lens) 8m (314.96") (Cable) 321g (0.71lb) (SLA-T4680V)	ø 24 x 49.8mm (ø 0.94" x 1.96") (Lens) 8m (314.96") (Cable) 318g (0.70lb) (SLA-T2480) 30 x 27.9 x 45mm (1.18" x 0.1" x 1.77") (Lens) 8m (314.96") (Cable) 328g (0.72lb) (SLA-T2480V)	ø 35 x 68.9mm (ø 1.38" x 2.71") (Lens) 8m (314.96") (Cable) 321g (0.71lb)



XNZ-6320A
2MP 32x Zoom Camera



XNZ-L6320A
2MP 32x Zoom Camera



XNP-6550RH
2MP 55x IR PTZ Camera



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



XNP-6400R
2MP 40x IR PTZ camera



XNP-6400
2MP 40x PTZ Camera

Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	2MP/ 60fps				
Min. Illumination	Colour: 0.05Lux (1/30sec, 30IRE) B/W: 0.005Lux (1/30sec, 30IRE)		BW : 0.002Lux(F1.6, IR LED off), 0Lux(IR LED on)	Colour: 0.05Lux (1/30sec, 30IRE) B/W: 0.005Lux (1/30sec, 30IRE)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)
Video Out	CVBS: 1.0 Vp-p / 75 Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	CVBS: 1.0 Vp-p / 75 Ω composite for installation	CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation	-	
Focal Length (Zoom Ratio)	4.44 ~ 142.6mm (Optical 32X) (digital 32x)		4.75~261.4mm(55x) zoom	4.25~170mm (Optical 40X) (digital 32x) 4.25~170mm(40x) zoom (digital 32x, total 1280x zoom)	
Angular Field of View	H: 64.66 ° (Wide) ~ 2.29 ° (Tele) / V: 38.08 ° (Wide) ~ 1.30 ° (Tele)	H: 64.66 ° (Wide) ~ 2.29 ° (Tele) / V: 38.08 ° (Wide) ~ 1.30 ° (Tele)	H: 58.6° (Wide) ~ 1.23° (Tele) / V: 34.8° (Wide) ~ 0.71° (Tele)	H: 65.66 ° (Wide) ~ 1.88 ° (Tele) / V: 39.4 ° (Wide) ~ 1.09 ° (Tele)	H: 65.66° (Wide) ~ 1.88° (Tele) / V: 39.4° (Wide) ~ 1.09° (Tele)
Pan / Tilt / Rotate Range	-	-	360° Endless / 95° (-5° ~ 90°) / -	360° Endless / 110° (90° ~-20°) / -	
IR Viewable Length	-	-	500m(1,640.42ft)	Wise IR 200m(656.17ft)	-
Day & Night	Auto(ICR)				
Wide Dynamic Range	120dB		150dB		Extreme WDR(150dB)
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	Support			Support(built-in gyro sensor)	
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear)	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Shock detection * Audio detection, Sound classification(with NW I/O Box)
Business Intelligence	-				
Alarm I/O	1 / 2	1 / 1	4/2	-	
Audio I/O	Selectable (mic in/line in) / Line out			-	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG				
WiseStream	Manual, WiseStream II				Manual(Sea area), WiseStream II
Streaming	Up to 10 profiles			Unicast(20 users) / Multicast (Support) Multiple streaming(Up to 10 profiles)	Unicast(20 users) / Multicast (128 user) Multiple streaming(Up to 10 profiles)
Edge Storage	Max. 512GB x 2slot(Total 1TB)	Max. 256GB x 1slot	Max. 256GB x 2slot(Total 512GB)	Max. 512GB x 2slot(Total 1TB) Micro SD/SDHC/SDXC 2slot 1TB	
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform				
Operating Temperature / Humidity	-10° C ~ +55° C (-14° F ~ +131° F) / 0~90%RH(Non-condensing)		AC24: -50° C ~ +55° C (-58° F ~ +131° F) / HPoE: -40° C ~ +55° C (-22° F ~ +131° F)	-40° C ~ +55° C (-40° F ~ +131° F) / 0~100% RH(condensing) +74° C (+165° F)(Max) based on NEMA-TS 2(2.2.7), Start up should be done at above-30° C, Humidity control with AIR vent	
Certification	-		IEC 60529 IP66, IEC 62262 IK10	-	
Power Consumption	PoE: Max 7.5W, Typical 4.5W 12VDC: Max 7.0W, Typical 4.0W	PoE: Max 7.5W, Typ 5.0W 12VDC: Max 5.7W, Typ 3.7W	24VAC: Max. 92W (typical : 30W) HPoE : Max. 60W (typical : 30W)	Max. 42W, Typical 20W	Max. 40W, Typical 20W Max. 25W, Typical 20W
Product Dimensions / Weight	96 x 76 x 143.5mm (3.78x2.99x5.65"), 578g (1.27 lb)	72 x 63.9 x 135.4mm (2.83x2.52x5.33"), 480g(1.06 lb)	ø 236.9x407.7mm(9.33x16.05"), 7,100g(15.65 lb)	ø 184.9x318.8mm(7.28x12.55"), 5400g(11.90lb)	ø 158x293.3mm(6.22x11.55"), 3,200g(7.05lb) ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb)



XNP-6120H
2MP 12x PTZ Camera



XNP-6040H
2MP 4.3x PTZ Camera



PNM-9031RV
15MP IR Panoramic Camera



PNM-9085RQZ1
5MP x 4CH IR PTRZ Multi-directional Camera



PNM-9084RQZ1
2MP x 4CH IR PTRZ Multi-directional Camera

Imaging Device	1/2.8" CMOS		1/2.8" CMOS (x4)	1/1.8" CMOS x 4CH	1/2.8" CMOS x 4CH
Resolution / Max. Frame Rate	2MP / 60fps		15MP / 20fps	8MP / 30fps	8MP / 60fps
Min. Illumination	Colour: 0.03 Lux (1/30sec, 30IRE) B/W: 0.003 Lux (1/30sec, 30IRE)	Colour: 0.015Lux(30IRE) BW: 0.0015Lux(30IRE)	Colour: 0.1Lux(1/30sec, 30IRE) BW: 0.01 Lux (1/30sec, 30IRE)	Colour: 0.11lux(1/30sec, 30 IRE) BW 0.011 Lux(1/30sec, 30IRE)	Colour: 0.05lux(1/30sec, 30IRE) BW: 0.005Lux(1/30sec, 30IRE)
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle	–	–
Focal Length (Zoom Ratio)	5.2~62.4mm(12x) zoom (digital 32x)	2.8~12mm(4.3x) zoom (digital 32x)	4.3mm	4.13~9.4mm(2.3x)	3.2~10mm(3.1x)
Angular Field of View	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)	H: 195.3° ~ 197.0° V: 63.6°	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)
Pan / Tilt / Rotate Range	360° Endless / 190° (−5° ~ 185°) / –	0° ~ 355° / 0° ~ 90°	0~360° / 0~60° / –	Remote adjustment (Max. 200cycles) 0~360° / 35~80° / 0~90°	
IR Viewable Length	–		WiseIR 20m(65.62ft) 4 individual zones with Automatic and Manual level adjustment	30m(98.43ft)	
Day & Night	Auto(ICR)				
Wide Dynamic Range	150dB		120dB		
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	Support		–	Support	
Analytics	Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)		Defocus detection, Motion detection, Tampering, Audio detection, Virtual area(Intrusion/Enter/Exit), Virtual area (Appear/Disappear), Virtual line (Crossing, Direction)	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	
Business Intelligence	–		Heatmap	–	
Alarm I/O	1 / 1		2 / 1	1 / 1	
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in)		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG				
WiseStream	Manual, WiseStream II				
Streaming	Up to 10 profiles		Unicast up to 15 users, Multicast support, up to 5 profiles	Unicast up to 20 users, Multicast support, up to 10 profiles	
Edge Storage	Max. 256GB x 2slot(Total 512GB)			Max. 256GB x 4slot(Total 1TB)	
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API) Hanwha Vision Open Platform		ONVIF Profile S/G/T, SUNAPI(HTTP API)	ONVIF Profile S/T, SUNAPI(HTTP API) Hanwha Vision Open Platform	
Operating Temperature / Humidity	−30° C~+55° C (−22° F~+131° F) / 0~90%RH(Non=condensing)		−40° C~+55° (−40° F~+131° F) * Startup should be above −30°C Less than 95% RH(Non=condensing)	−40° C~+55° C(−40° F~+131° F) / 0~90%RH(Non=condensing)	
Certification	IP66, IK10		IP66, IK10, NEMA 250 type 4X		
Power Consumption	DC12V : Max. 12W PoE : Max. 12W	DC12V: Max. 8.6W PoE : Max. 9.6W	PoE+: Max. 23.5W, Typical 18.0W 12VDC: Max. 20.5W, Typical 16.0W	PoE: Max. 45 W, Typical 33.7 W 12VDC: Max. 42 W, Typical 32 W	PoE: Max. 42 W, Typical 30 W 12VDC: Max. 38 W, Typical 28.2 W
Product Dimensions / Weight	ø 168x161.5mm(6.61x6.36"), 1,900g(4.19 lb)		ø 253x170mm(9.96x6.69") / 2,900g(6.39lb)	ø 315x145.9 mm(12.40"x5.74") / 5,200g(11.5lb)	



PNM-9084QZ1
2MP x 4CH PTRZ Multi-directional Camera



PNM-8082VT
2MP x 3CH Multi-directional Camera



PNM-12082RVD
6MP x 2CH Multi-directional Camera



PNM-7082RVD
2MP x 2CH Multi-directional Camera

Imaging Device	1/2.8" CMOS x 4CH		1/2.8" CMOS x 3CH		1/2.8" CMOS x 2CH	
Resolution / Max. Frame Rate	8MP / 60fps		2MP / 30fps		6MP / 15fps	2MP / 30fps
Min. Illumination	Colour: 0.04lux(1/30sec, 30IRE) BW: 0.004lux(1/30sec, 30IRE)		Colour: 0.04lux(F2.2) BW: 0.004lux(F2.2)		Colour: 0.16Lux(1/30sec, 30IRE) BW: 0.016 Lux(1/30sec, 30IRE)	Colour: 0.035Lux(1/30sec, 30IRE) BW: 0.0035Lux(1/30sec, 30IRE)
Video Out	-		CVBS: 1.0 Vp-p / 75Ω composite for installation		USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle	USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.
Focal Length (Zoom Ratio)	3~6mm(2x)				3.54~6.69mm(1.9x)	3~6mm(2x)
Angular Field of View	H: 107 ° (Wide) ~ 56.3 ° (Tele) V: 57 ° (Wide) ~ 31.5 ° (Tele) D: 126 ° (Wide) ~ 64.3 ° (Tele)				H: 96° (Wide)~47° (Tele) V: 51° (Wide)~26° (Tele) D: 113° (Wide)~54° (Tele)	H: 107° (Wide)~56° (Tele) V: 57° (Wide)~31° (Tele) D: 126° (Wide)~64° (Tele)
Pan / Tilt / Rotate Range	Remote adjustment (Max. 200cycles) 0~360 ° / 0~73 ° / 0~90 °		0 ~360 ° / 0 ~73 ° / 0 ~ 90 °		0 ~355° / 0 ~78° / 0 ~180°	0~355° / 0~78° / 0~180°
IR Viewable Length	-		-		15m(49ft), 25m(82ft) based on scene	
Day & Night	Auto(ICR)					
Wide Dynamic Range	120dB					
Digital Noise Reduction	SSNR V		WiseNR, SSNR V			
Digital Image Stabilization	Support				-	-
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)		Defocus detection, Motion detection, Tampering, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)		Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	
Business Intelligence	-					
Alarm I/O	1 / 1		-			
Audio I/O	Selectable (mic in/line in)		-			
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG					
WiseStream	Manual, WiseStream II					
Streaming	Unicast up to 20 users, Multicast support, up to 10 profiles					
Edge Storage	Max. 256GB x 4slot(Total 1TB)		Micro SD/SDHC/SDXC Max. 256GB x 2slot(Total 512GB)		Micro SD/SDHC/SDXC 1slot Max. 512GB	Micro SD/SDHC/SDXC Max. 512GB x 1slot
Application Programming Interface	ONVIF Profile S/T, SUNAPI(HTTP API) Hanwha Vision Open Platform		ONVIF Profile S/G/T, SUNAPI(HTTP API)		ONVIF Profile S/T, SUNAPI(HTTP API), Open platform	
Operating Temperature / Humidity	-40° C~-55° C(-40° F~+131° F) 0~90%RH(Non-condensing) *Start up should be above at -35° C		-40° C~-55° C(-40° F~+131° F) / 0~95% RH(non-condensing) *Start up should be above at -35° C			
Certification	IP66, IK10, NEMA 250 type 4X				IP66, IP67,IK10, NEMA 250 type 4X	
Power Consumption	Max. 33W, Typical 20W		PoE+: Max : 16.5W, Typical : 8.2W		PoE+: Max 18.3W, typical 13.5W	PoE+: Max 17W, typical 12.5W
Product Dimensions / Weight	ø 251x116.5mm(9.88x4.59") / 3,000g(6.61lb)		ø 251 x 116.5mm (ø 9.88" x 4.59"), 3,000g (6.6lb)		215(W)x135(D)x93.2(H)mm(8.46"x5.31"x3.67") / 1,330g(2.93lb)	



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



SLA-T4680A/T4680VA
2MP lens for PNM-9000QB



SLA-T2480WA/T2480WDA
2MP lens for PNM-9000QB



SLA-T2480A/T2480VA
2MP lens for PNM-9000QB



SLA-T1080FA
2MP lens for PNM-9000QB

Imaging Device	–	1/2.8" CMOS			
Resolution / Max. Frame Rate	2MP / 30fps	–			
Min. Illumination	–	Colour: 0.06Lux(F2.5)	Colour: 0.045Lux(F2.0, 1/30sec, 30IRE) BW: 0.045Lux(F2.0, 1/30sec, 30IRE) * with PNM-9000QB, XNB-6002	Colour: 0.045Lux(F2.0)	Colour: 0.03Lux(F1.6)
Video Out	HDMI(1920x1080, Quad view support)	–			
Focal Length (Zoom Ratio)	–	4.6mm	2.4mm		1.6mm
Angular Field of View	–	H: 73° / V: 39° / D: 85°	H: 183° / V: 73° / D:165°		H: 187° / V: 113.9°
Pan / Tilt / Rotate Range	–				
IR Viewable Length	–				
Day & Night	Auto(electrical)	–			
Wide Dynamic Range	120dB	–			
Digital Noise Reduction	SSNRV	–			
Digital Image Stabilization	Support	–			
Analytics	Defocus detection, Motion detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing, Direction)	–			
Business Intelligence	–	–			
Alarm I/O	1 / 1	–			
Audio I/O	Selectable(mic in/line in) / Line out	–			
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG	–			
WiseStream	WiseStream II	–			
Streaming	unicast up to 20 users, Mutlicast support, up to 20 profiles	–			
Edge Storage	Micro SD/SDHC/SDXC Max. 512GB x 2slot (Total 1TB)	–			
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API) Hanwha Vision Open Platform	–			
Operating Temperature / Humidity	–10° C ~ +45° C(–40° F ~ +113° F) / Less than 95% RH(Non condensing)	–			
Certification	–				
Power Consumption	PoE : Max 22W, Typical 16.70W DC : Max 19W, Typical : 14W	–			
Product Dimensions / Weight	200(W)x37(H)x146(D)mm(7.87x1.46x5.75") 715g(1.58lb)	ø 24 x L49.8mm, 310g (SLA-T4681) W30 x H27.9 x D45mm, 321g (SLA-T4681V)	ø 35x63.2mm(ø 1.38x2.49"), 101g(0.22lb) (SLA-T2480WA) ø 110.0x77.0mm(ø 3.54x2.36"), 450g(0.99lb) (SLA-T2480WDA) Cable: 8m(26.2ft)	ø 24 x L49.8mm, 318g (SLA-T2481) W30 x H27.9 x D45mm, 328g (SLA-T2481V)	ø 35 x L68.9mm 430g



QND-8011
5MP Dome Camera



QND-8021
5MP Dome Camera



QNO-7082R
4MP IR Bullet Camera



QNO-7022R
4MP IR Bullet Camera



QNO-7012R
4MP IR Bullet Camera



QNO-6082R/6082R1
2MP IR Bullet Camera

Imaging Device	1/2.8" CMOS		1/3" CMOS		1/2.8" CMOS		
Resolution / Max. Frame Rate	5MP / 30fps		4MP / 30fps		2MP / 30fps		
Min. Illumination	Colour : 0.15Lux(1/30sec, 30IRE) BW : 0.15Lux(1/30sec, 30IRE)	Colour : 0.15Lux(1/30sec, 30IRE) BW : 0.15Lux(1/30sec, 30IRE)	Colour : 0.1Lux(1/30sec, 30IRE) BW : 0.01Lux(1/30sec, 30IRE)	Colour : 0.15Lux(1/30sec, 30IRE) BW : 0.015Lux(1/30sec, 30IRE)		Colour : 0.03Lux(F1.6, 1/30sec, 30IRE) BW : 0.003Lux(F1.6, 1/30sec, 30IRE)	
Video Out	HDMI: 1080p@30/25fps(60/50Hz)		CVBS: 1.0 Vp-p / 75Ω composite for installation				
Focal Length (Zoom Ratio)	2.8mm	4.0mm	3.2~10mm (3.1x) varifocal	4mm	2.8mm	3.2 ~ 10mm (3.1x) varifocal	
Angular Field of View	H : 105° / V : 77° / D : 137°	H: 81° / V: 58° / D: 106°	H : 99° (Wide)~ 30° (Tele) V : 53° (Wide)~ 17° (Tele) D : 116° (Wide)~ 35° (Tele)	H:79° / V:42° / D:92°	H: 108° / V: 60° / D: 122°	H : 109° (Wide)~ 33° (Tele) V : 58° (Wide)~ 18° (Tele) D : 132° (Wide)~ 38° (Tele)	
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 69° / 0° ~ 355°		0° ~ 360° / 0° ~ 100° / 0° ~ 360°				
IR Viewable Length	-		30m (98.42ft)	25m (82.02ft)	20m (65.62ft)	30m (98.43ft)	
Day & Night	Auto (Electrical)		Auto (ICR)				
Wide Dynamic Range	120dB						
Digital Noise Reduction	SSNR						
Digital Image Stabilization	-						
Analytics	Defocus detection, Motion detection, Tampering		Defocus detection, Motion detection, Tampering, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing, Direction)				
Business Intelligence	People counting		-				
Alarm I/O	-	-	1 / 1				
Audio I/O	-	-	Selectable (mic in/line in) / -			Selectable (mic in/line in) / -	-
Video Compression	H.265/H.264: Main/High, MJPEG						
WiseStream	Manual, WiseStream II						
Streaming	Unicast(6 users) / Multicast, Multiple streaming(Up to 3 profiles)						
Edge Storage	Micro SD/SDHC/SDXC Max. 128GB x 1slot						
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform						
Operating Temperature	-10°C ~ +40°C (+14°F ~ +104°F)	-10° C ~ +40° C(+14° F ~ +104° F) 0 ~ 90% RH(non-condensing)	-40°C ~ +55°C (-40°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at -30°C or above			-30°C ~ +55°C (-22°F ~ +131°F) 0~90% RH(non-condensing) *Start up should be done at above -20°C	
Certification	IK08, IP42	-	IP66, IK10, NEMA 250 type 4X			IP66, IK10, NEMA4X	IP66, IK10
Power Consumption	PoE : Max 5W, typical 4W	PoE: Max 5.00W, typical 4.00W	PoE: Max 11.4W, typical 8W 12VDC: Max 9.6W, typical 7W	PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W		PoE : Max 7.4W, typical 5.4W 12VDC : Max 6.5W, typical 4.8W	
Dimensions (WxHxD) / Weight	ø 99 x 56mm (ø 3.9" x 2.2") 165g (0.364lb)	ø 99.0x56.0mm(ø 3.9x2.2"), 165g(0.36 lb)	ø 78.0x259.8mm(3.07x10.23") 900g(1.98lb)	ø 70.0x246.0mm(2.76x9.69") 700g(1.54lb)		ø 78.0x259.8mm(3.07x10.23") 900g(1.98lb)	



QNO-6022R/6022R1
2MP IR Bullet Camera



QNO-6012R/6012R1
2MP IR Bullet Camera



QND-7082R
4MP IR Dome Camera



QND-7032R
4MP IR Dome Camera



QND-7022R
4MP IR Dome Camera

Imaging Device	1/2.8" CMOS				1/3" CMOS					
Resolution / Max. Frame Rate	2MP / 30fps				4MP / 30fps					
Min. Illumination	Colour : 0.03Lux(F1.6, 1/30sec, 30IRE) BW : 0.003Lux(F1.6, 1/30sec, 30IRE)				Colour : 0.1Lux(F1.6, 1/30sec, 30IRE) BW : 0.01Lux(F1.6, 1/30sec, 30IRE)		Colour : 0.15Lux(F2.0, 1/30sec, 30IRE) BW : 0.015Lux(F2.0, 1/30sec, 30IRE)			
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation									
Focal Length (Zoom Ratio)	4mm		2.8mm		3.2~10mm (3.1x) varifocal		6mm		4mm	
Angular Field of View	H : 88° / V : 47° / D : 105°		H : 114° / V : 62° / D : 135°		H : 99° (Wide) ~ 30° (Tele) V : 53° (Wide) ~ 17° (Tele) D : 116° (Wide) ~ 35° (Tele)		H : 49° / V : 28° / D : 56°		H : 79° / V : 42° / D : 92°	
Pan / Tilt / Rotate	0° ~ 360° / 0° ~ 100° / 0° ~ 360°				0° ~ 350° / 0° ~ 67° / 0° ~ 355°					
IR Viewable Length	25m (82.02ft)		20m (65.62ft)							
Day & Night	Auto (ICR)									
Wide Dynamic Range	120dB									
Digital Noise Reduction	SSNR									
Digital Image Stabilization	-									
Analytics	Motion detection, Tampering, Defocus detection , Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction)									
Business Intelligence	-									
Alarm I/O	1 / 1									
Audio I/O	Selectable (mic in/line in) / -	-	Selectable (mic in/line in) / -	-	Built-in mic / -					
Video Compression	H.265 / H.264, MJPEG					H.265/H.264: Main/High, MJPEG		H.265 / H.264, MJPEG		
WiseStream	WiseStream II									
Streaming	Up to 3 Profiles									
Edge Storage	Micro SD/SDHC/SDXC Max. 128GB x 1slot									
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform									
Operating Temperature	-30° C~+55° C(-22° F~+131° F) 0~90% RH(non-condensing) *Start up should be done at above -20° C				-10° C~+55° C(+14° F~+131° F) 0~90% RH(non-condensing)					
Certification	IP66, IK10		IP66, IK10		-		-			
Power Consumption	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W, typical 4.5W				PoE: Max 8.6W, typical 6.3W 12VDC: Max 7.6W, typical 5.4W		PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W			
Product Dimensions / Weight	ø 70.0x246.0mm(2.76x9.69") 700g(1.54lb)				ø 119.8x98.8mm(4.72x3.89") 320g(0.71lb)		ø 110.0x86.0mm(4.33x3.39") 255g(0.56lb)			



QND-7012R
4MP IR Dome Camera



QND-6082R/6082R1
2MP IR Dome Camera



QND-6022R/6022R1
2MP IR Dome Camera



QND-6012R/6012R1
2MP IR Dome Camera



QND-6021
2MP Dome Camera

Imaging Device	1/3" CMOS		1/2.8" CMOS				
Resolution / Max. Frame Rate	4MP / 30fps		2MP / 30fps				
Min. Illumination	Colour : 0.15Lux(F2.0, 1/30sec, 30IRE) BW : 0.015Lux(F2.0, 1/30sec, 30IRE)		Colour : 0.03Lux(F1.6, 1/30sec, 30IRE) BW : 0.003Lux(F1.6, 1/30sec, 30IRE)				
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation						–
Focal Length (Zoom Ratio)	2.8mm fixed focal	3.2 ~ 10mm (3.1x) varifocal	4mm		2.8mm		4mm
Angular Field of View	H : 108° / V : 60° / D : 122°	H : 109° (Wide)~33° (Tele) V : 58° (Wide)~18° (Tele) D : 132° (Wide)~38° (Tele)	H:88° / V:47° / D:105°		H:114° / V:62° / D:135°		H:88° / V:47° / D:105°
Pan / Tilt / Rotate Range	0° ~ 350° / 0° ~ 67° / 0° ~ 355°						0° ~ 350° / 0° ~ 69° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)						–
Day & Night	Auto (ICR)						Auto (Electrical)
Wide Dynamic Range	120dB						
Digital Noise Reduction	SSNR						
Digital Image Stabilization	–						
Analytics	Motion detection, Tampering, Defocus detection , Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction)						Defocus detection, Motion detection, Tampering
Business Intelligence	–						People counting
Alarm I/O	1 / 1						–
Audio I/O	Built-in mic / –	–	Built-in mic / –	–	Built-in mic / –	–	–
Video Compression	H.265 / H.264, MJPEG						
WiseStream	WiseStream II						
Streaming	Up to 3 Profiles						
Edge Storage	Micro SD/SDHC/SDXC Max. 128GB x 1slot						
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform						
Operating Temperature / Humidity	–10° C~+55° C(+14° F~+131° F) 0~90% RH(non–condensing)						
Certification	–						IP42, IK08
Power Consumption	PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W, typical 5.1W					PoE : Max 4.8W, typical 2.8W
Product Dimensions / Weight	ø 110.0x86.0mm(4.33x3.39") 255g(0.56lb)	ø 119.8x98.8mm(ø 4.72x3.89") 320g(0.71lb)	ø 110.0x86.0mm(ø 4.33x3.39") 255g(0.56lb)				ø 99.0x56.0mm(ø 3.9x2.2") 145g(0.32lb)

					
	QND-6011 2MP Dome Camera	QNV-7082R 4MP IR Vandal Dome Camera	QNV-7032R 4MP IR Vandal Dome Camera	QNV-7022R 4MP IR Vandal Dome Camera	QNV-7012R 4MP IR Vandal Dome Camera
Imaging Device	1/2.8" CMOS	1/3" CMOS			
Resolution / Max. Frame Rate	2MP / 30fps	4MP / 30fps			
Min. Illumination	Colour : 0.03Lux(F2.0, 1/30sec, 30IRE) BW : 0.003Lux(F2.0, 1/30sec, 30IRE)	Colour : 0.1Lux(F1.6, 1/30sec, 30IRE) BW : 0.01Lux(F1.6, 1/30sec, 30IRE)	Colour : 0.15Lux(F2.0, 1/30sec, 30IRE) BW : 0.015Lux(F2.0, 1/30sec, 30IRE)		
Video Out	–	CVBS: 1.0 Vp-p / 75Ω composite for installation			
Focal Length (Zoom Ratio)	2.8mm	3.2~10mm (3.1x) varifocal	6.0mm	4mm	2.8mm
Angular Field of View	H:114° / V:62° / D:135°	H : 99° (Wide) ~ 30° (Tele) V : 53° (Wide) ~ 17° (Tele) D : 116° (Wide) ~ 35° (Tele)	H: 49° / V: 28° / D: 56°	H:79° / V:42° / D:92°	H: 108° / V: 60° / D: 122°
Pan / Tilt / Rotate Range	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°			
IR Viewable Length	–	30m (98.42ft)	25m (82.02ft)		20m (65.62ft)
Day & Night	Auto (Electrical)	Auto (ICR)			
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNR				
Digital Image Stabilization	–				
Analytics	Defocus detection, Motion detection, Tampering	Motion detection, Tampering, Defocus detection , Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction)			
Business Intelligence	People counting	–			
Alarm I/O	–	1 / 1			
Audio I/O	–	Line in / –	Selectable (mic in/line in) / –	Selectable (mic in/line in)	
Video Compression	H.265 / H.264, MJPEG		H.265/H.264 : Main/High, MJPEG	H.265 / H.264, MJPEG	
WiseStream	WiseStream II		Manual (5ea area), WiseStream II	WiseStream II	
Streaming	Up to 3 Profiles		Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)	Up to 3 Profiles	
Edge Storage	Micro SD/SDHC/SDXC Max. 128GB x 1 slot				
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform				
Operating Temperature / Humidity	–10° C~+55° C(+14° F~+131° F) 0~90% RH(non–condensing)	–40° C~+55° C(–40° F~+131° F) 0~95% RH(non–condensing) *Start up should be done at above –30° C			
Certification	IP42, IK08	IP66, IK10			
Power Consumption	PoE : Max 4.8W, typical 2.8W	PoE: Max 11.4W, typical 8.5W 12VDC: Max 9.6W, typical 7.2W	PoE: Max 10.7W, typical 8.1W 12VDC: Max 9.1W, typical 6.5W		
Product Dimensions / Weight	ø 99.0x56.0mm(ø 3.9x2.2") 145g(0.32lb)	ø 137.0x106.1mm(ø 5.39x4.18") 710g(1.57lb)	ø 120.3x91.7mm(4.74x3.61") 510g(1.12lb)		

					
QNV-6082R/6082R1 2MP IR Vandal Dome Camera	QNV-6022R/6022R1 2MP IR Vandal Dome Camera	QNV-6012R/6012R1 2MP IR Vandal Dome Camera	QNV-6024RM 2MP IR Mobile Camera		
Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	2MP / 30fps				
Min. Illumination	Colour : 0.03Lux(F1.6, 1/30sec, 30IRE) BW : 0.003Lux(F1.6, 1/30sec, 30IRE)				
Video Out	CVBS: 1.0 Vp-p / 75Ω composite for installation				
Focal Length (Zoom Ratio)	3.2 ~ 10mm (3.1x) motorized varifocal	4mm fixed	2.8mm fixed 3.6mm fixed		
Angular Field of View	H : 109° (Wide) ~ 33° (Tele) V : 58° (Wide) ~ 18° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 88° / V : 47° / D : 105°	H : 114° / V : 62° / D : 135° H : 95° / V : 50° / D : 115°		
Pan / Tilt / Rotate Range	0° ~ 350° / 0° ~ 67° / 0° ~ 355°		± 5° / 0 ~ 67° / ± 90°		
IR Viewable Length	30m (98.42ft)	25m (82.02ft)	15m (49.21ft)		
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNR				
Digital Image Stabilization	-				
Analytics	Motion detection, Tampering, Defocus detection , Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction)		Defocus detection, Motion detection, Tampering, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing, Direction)		
Business Intelligence	-				
Alarm I/O	1 / 1		-		
Audio I/O	Selectable (mic in/line in)/-	-	Selectable (mic in/line in)/-	-	Selectable (mic in/line in/built-in mic)/ Line out
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream II				
Streaming	Up to 3 Profiles				
Edge Storage	Micro SD/SDHC/SDXC Max. 128GB x 1 slot				
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform				
Operating Temperature / Humidity	-30° C~+55° C(-22° F~+131° F) 0~90% RH(non-condensing) *Start up should be done at above -20° C		-30° C~+55° C(-22° F~+131° F) 0~90% RH(non-condensing)		
Certification	IP66, IK10		IP66, IK10		
Power Consumption	PoE: Max 7.70W, typical 6.00W 12VDC: Max 6.50W, typical 5.10W	PoE : Max. 7.40W, typical 6.00W 12VDC : Max. 6.40W, typical 5.10W	PoE : Max 6.7W, typical 5W		
Product Dimensions / Weight	ø 137.0x106.1mm(ø 5.39x4.18") 710g(1.57lb)	ø 120.3x91.7mm(4.74x3.61") 510g(1.12lb)	W 98.9 x H 52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)		



QNP-6320R
2MP 32x IR PTZ Camera



QNP-6250R
2MP 25x IR PTZ Camera



QNP-6320H
2MP 32x Outdoor PTZ Camera



QNP-6250H
2MP 25x Outdoor PTZ Camera



QNP-6320
2MP PTZ Camera

Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	2MP / 60fps				
Min. Illumination	Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE),		Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE)		Colour: 0.05 Lux (1/30sec, 30IRE) BW: 0.005 Lux(1/30sec, 30IRE)
Video Out	-				
Focal Length (Zoom Ratio)	4.44~142.6mm(32x) zoom	4.44~111mm(25x) zoom	4.44~142.6mm(32x) zoom	4.44~111mm(25x) zoom	4.44~142.6mm(32x) zoom
Angular Field of View	H:64.66° ~2.29° V:38.08° ~1.30°	H:64.66° ~2.99° V:38.08° ~1.68°	H:64.66° ~2.29° V:38.08° ~1.30°	H:64.66° ~2.99° V:38.08° ~1.68°	H:64.66° ~2.29° V:38.08° ~1.30°
Pan / Tilt / Rotate Range	360° Endless / -110° (90° ~ -20°)				
IR Viewable Length	100m(328.08ft)		-		
Day & Night	Auto(ICR)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	Support				
Analytics	Motion detection, Tampering, Audio detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)		Motion detection, Tampering, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/ Disappear), Virtual line(Crossing, Direction)	Motion detection, Tampering, Audio detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing, Direction)	Motion detection, Tampering, Audio detection, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/ Disappear), Virtual line(Crossing, Direction)
Business Intelligence	-				
Alarm I/O	Compatible with NW I/O Box (Optional: SPM-4210)				Input 4ea / Output 2ea
Audio I/O	Compatible with NW I/O Box (Optional: SPM-4210)				Selectable(mic in/line in), Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG				
WiseStream	Manual, WiseStream II				
Streaming	Up to 10 profiles				
Edge Storage	Micro SD/SDHC/SDXC 1slot Max. 256GB				
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API) Hanuwa Vision Open Platform				
Operating Temperature / Humidity	-35° C~+55° C(-31° F~+131° F) * Start up should be done at above -30° C 0~95% RH(non-condensing)				-10° C~+55° C(14° F~+131° F) 0~95% RH(Non-condensing)
Certification	IP66, IK10				-
Power Consumption	PoE+: Max. 25.5W, typical 14.7W		PoE+: Max. 23W, typical 14W	Max. 23W, Typ. 14W	
Product Dimensions / Weight	ø 158x293.3mm(ø 6.22x11.55"), 3,100g(6.83lb)		ø 204.3x265mm(ø 8.04x10.43"), 2,700g(5.95lb)		ø 152x218mm(ø 5.98x8.58"), 1,700g(3.75 lb)



QNP-6250
2MP 32x Outdoor PTZ Camera



QNP-6320HS
2MP 32x Stainless Steel PTZ Camera



QNF-9010
12MP Fisheye Camera



QNF-8010
6MP Fisheye Camera

Imaging Device	1/2.8" CMOS		1/2.3" CMOS	1/1.8" CMOS
Resolution / Max. Frame Rate	2MP / 60fps		9MP / 30fps	4MP / 30fps
Min. Illumination	Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE)		Colour: 0.39 Lux (F2.2, 1/30sec)	Colour : 0.2 Lux (F2.5) BW: 0.02Lux (F2.5)
Video Out	-		CVBS 1.0 Vp-p	
Focal Length (Zoom Ratio)	4.44~142.6mm(32x) zoom (digital 32x, total 1024x zoom)	4.44~142.6mm(32x) zoom (digital 32x, total 1024x zoom)	1.08mm fixed	1.14mm fixed
Angular Field of View	H:64.66° ~2.99° V:38.08° ~1.68°	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.30° (Tele)	H : 187° / V : 187° / D : 187°	H: 187° / V: 187° / D: 187°
Pan / Tilt / Rotate Range	360° Endless / -110° (90° ~ -20°)	360° Endless / -105° (90° ~ -15°)	-	
IR Viewable Length	-			
Day & Night	Auto(ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support		-	
Analytics	Motion detection, Tampering, Audio detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Motion detection, Tampering, Audio detection, Virtual area(Intrusion/Enter/Exit), Virtual line (Crossing, Direction)	Defocus detection, Motion detection, Tampering	
Business Intelligence	-			
Alarm I/O	-	-		
Audio I/O	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input	Compatible with NW I/O Box (Optional: SPM-4210)	-	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG	H.265, H.264, MJPEG		
WiseStream	Manual, WiseStream II		Manual, WiseStream II	WiseStream II
Streaming	Up to 10 profiles		Up to 3 Profiles	
Edge Storage	Micro SD/SDHC/SDXC 1slot Max. 256GB	Max. 256GB x 1slot	Max. 256GB x 1slot	Max. 256GB x 1slot
Application Programming Interface	ONVIF S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform			
Operating Temperature / Humidity	-10° C~+55° C(14° F~+131° F) 0~95% RH(Non-condensing)	-35° C~+55° C(-31° F~+131° F) / * Start up should be done at above -25° C 0~95% RH(non-condensing)	-10°C ~ +40°C (+14°F ~ +104°F) 0~95% RH(non-condensing)	-10°C ~ +55°C (+14°F ~ +131°F) 0~95% RH(non-condensing)
Certification	-	IP66, IP67, IK10, NEMA4X	-	IP42
Power Consumption	PoE+: Max 14.5W, typical 12W	Max. 23W, typical 14W	PoE: Max 7.7W, typical 6.4W	PoE : Max 6.4W, typical 4.6W
Product Dimensions / Weight	ø 152x218mm(ø 5.98x8.58"), 1,700g(3.75 lb)	ø 227x299.2mm(8.94x11.78"), 5,400g(11.93 lb)	ø 99 x 49 mm (ø 3.9" x 1.93") 370g (0.82lb)	ø 99 x 49 mm (ø 3.9" x 1.93") 320 g (0.705lb)



TNU-6322E
2MP Explosion-proof Camera



TNU-6322ER
2MP Explosion-proof Camera



TNU-6321
2MP Explosion-proof Camera



TNV-7011RC
3MP Corner Mount Camera



TNV-8011C
5MP Corner Mount Camera

Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	2MP / 60fps		3MP / 30fps	5MP / 30fps
Min. Illumination	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)	Colour: 0.3 lux (F2.0, 1/30sec) BW: 0.03 lux (F2.0, 1/30sec)
Video Out	-		CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length (Zoom Ratio)	4.44~142.6mm(32x) zoom		2.8mm fixed focal	2.3mm fixed focal
Angular Field of View	H: 61.8 ° (Wide) ~ 2.19 ° (Tele) V: 36.2 ° (Wide) ~ 1.24 ° (Tele)		H: 102° / V: 75° / D: 129°	H: 131° / V: 93.4° / D: 174°
Pan / Tilt / Rotate Range	-		- / 30° ~ 60° / -	-
IR Viewable Length	-	200m (656.1ft)	-	10m(32.8ft)
Day & Night	Auto(ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support			
Analytics	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear)		Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Defocus detection, Motion detection, Tampering, Audio detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing, Direction)
Business Intelligence	-			
Alarm I/O	1 / 1			
Audio I/O	Selectable(mic in/line in) / Line out, Max.output level: 1Vrms, Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm		Selectable(mic in/line in) / Line out	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		H.265, H.264, MJPEG	
WiseStream	Manual, WiseStream II		WiseStream II	
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 10 profiles)		Up to 10 profiles	Up to 3 profiles
Edge Storage	-	-	Max. 256GB x 1slot	Max. 128GB x 1slot
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API) Hanwha Vision Open Platform		SUNAPI(HTTP API) Hanwha Vision Open Platform	
Operating Temperature / Humidity	-40° C ~ +60° C (-40° F ~ +140° F) 0~95% RH(non-condensing)		-40° C ~ +55° C (-40° F ~ +131° F) 0~90%RH(non-condensing)	-10°C ~ +55°C(+14°F ~ +131°F) 0~90% RH(non-condensing)
Certification	IP67, IK10		-	IP66, IP6K9K, IK10+
Power Consumption	24VAC: Max. 99W	24VAC: Max. 99W (Camera) 24VAC: Max. 50W (IR)	Max 100W(Heater On), typical 25W(Heater Off)	PoE: Max 12W, typical 10.1W, 12VDC: Max. 11W, typical 8.6W
Product Dimensions / Weight	611(W)x438(H)x235(D)mm (24.06x17.24x9.25"), 3,600g(79.37lb)	611(W)x438(H)x235(D)mm (24.06x17.24x9.25"), 3,600g(79.37lb)	219(W)×528.2(H)×460(D)mm (8.62x20.79x18.11"), 1,400g (30.86 lb)	274.5(W)x258.5(H)x113.5(D)mm (10.81x10.18x4.5"), 2,100g (4.63lb)



TNU-6324E
2MP Explosion-proof Camera



TNU-6324ER
2MP Explosion-proof Camera



TNO-6322ER
2MP Explosion-proof Camera

Imaging Device	1/2.8" CMOS	
Resolution / Max. Frame Rate	2MP / 60fps	
Min. Illumination	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)
Video Out	-	
Focal Length (Zoom Ratio)	4.44~142.6mm(Optical 32X)	
Angular Field of View	H:61.8° ~2.19° / V:36.2° ~1.24° / D:-	
Pan / Tilt / Rotate Range	360° Endless / 180° (-90° ~90°) / -	-
IR Viewable Length	-	200m(656.17ft)
Day & Night	Auto(ICR)	
Wide Dynamic Range	120dB	
Digital Noise Reduction	SSNR V	
Digital Image Stabilization	Support	
Analytics	Motion detection, Tampering, Fog detection, Face detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)	Defocus detection, Motion detection, Tampering, Fog detection, Face detection, Audio detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction)
Business Intelligence	-	
Alarm I/O	1 / 1	
Audio I/O	-	Selectable(mic in/line in) / Line out
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG	
WiseStream	Manual, WiseStream II	
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 10 profiles)	
Edge Storage	-	
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform
Operating Temperature / Humidity	-40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH * Start up should be done at above -30° C	IR Off: -40° C ~ +60° C (-40° F ~ +140° F) / Less than 95% RH IR On: -40° C ~ +55° C (-40° F ~ +131° F) / Less than 95% RH
Certification	IP67, IK10	
Power Consumption	100~240VAC, 1.4A, Max. 87W	100~240VAC, 1.7A, Max. 120W
Product Dimensions / Weight	611(W)x438(H)x235(D)mm(24.06x17.24x9.25"), 3,600g(79.37lb)	175(W)x242.5(H)x320(D)mm(6.89x9.59x12.59"), 1,150g(25.35lb)
Additional Features	Stainless(SUS316L) housing, Built in wiper	



TNU-4051T
VGA Thermal Positioning Camera



TNU-4041T
VGA Thermal Positioning Camera



TNO-4050T
VGA Thermal Bullet Camera



TNO-4040T
VGA Thermal Bullet Camera

Imaging Device	Uncooled micro bolometer		Uncooled micro bolometer (Spectral range: 8~14μm)	
Resolution	640x480 / 30fps		640x480(original), 640x360, 320x240	
Max. Frame Rate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz), MJPEG: Max. 30fps/25fps(60Hz/50Hz)		H.265/H.264: Max. 30fps/25fps(60Hz/50Hz), MJPEG: Max. 30fps	
NETD	≤50mK			
Pixel Pitch	17μm			
Focal Length	35mm fixed focal	19mm fixed focal	35mm fixed focal	19mm fixed focal
Angular Field of View	H: 17.2° / V: 13° / D: 22°	H: 32° / V: 24.3° / D: 39.2°	H: 17.2° / V: 13° / D: 22° (iFoV: 0.47 mRad)	H: 32° / V: 24.3° / D: 39.2° (iFoV: 0.895 mRad)
Pan / Tilt / Rotate	360° Endless / -90° ~40° / -		-	-
Min. Object Distance	-		36m(118.11ft)	11m(36.09ft)
Video Output	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation		CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.	
Analytics	Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Temperature change detection		Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Temperature detection	
Alarm I/O	Input 1ea / Output 1ea		Input 1ea / Output 2ea	
Audio I/O	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms		Selectable(mic in/line in)	
Temperature Detect Range			-	
Temperature Accuracy			-	
Temperature Detection			-	
Additional			-	
WiseStream	WiseStream II		Manual, WiseStream II	
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 10 profiles)			
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB			
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanuwa Vision Open Platform			
Memory	1024MB RAM, 256MB Flash			
Operating Temperature/ Humidity	-40° C ~ +55° C (-40° F ~ +131° F) / 0~90%RH(Non-condensing)		-40° C ~ +60° C (-40° F ~ +140° F) / 0~90%RH(Non-condensing)	
Certification	IP66, NEMA4X		IP66, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	24VAC: Max 84W(Heater on), Max 62W(Heater off)		PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W	
Dimensions (WxHxD) / Weight	(W)219 × (H)528 × (D)335mm(8.62x20.79x13.19"), 1,170g(25.79lb)		ø 101.97x401.8mm(4.01x15.82") / 3,175g(7.01 lb)	



TNO-L4040TR
VGA Thermal Bullet Camera



TNO-4040TR
VGA Thermal Bullet Camera



TNO-4030T
VGA Thermal Bullet Camera



TNO-L4030T
VGA Thermal Bullet Camera

Imaging Device	Uncooled micro bolometer			
Resolution	640x480, 640x360, 320x240			
Max. Frame Rate	H.265/H.264/MJPEG: Max. 8fps	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps	H.265/H.264/MJPEG: Max. 8fps
NETD	< 50mK			
Pixel Pitch	17μm			
Focal Length	19mm fixed focal		13mm fixed focal	
Angular Field of View	H: 32° / V: 24.3° / D: 39.2°		H: 48.6° / V: 36.4 / D: 61.6°	
Min. Object Distance	11m(36.09ft)		5m(16.40ft)	
Video Output	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.			
Analytics	Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Temperature detection			
Alarm I/O	Input 1ea / Output 2ea			
Audio I/O	Selectable(mic in/line in)			
Temperature Detect Range	-20° C ~ 130° C(-4° F ~ 266° F)	-20° C ~ 130° C(-4° F ~ 266° F)	-	
Temperature Accuracy	± 5° C(≤100° C), ± 20%(>100° C)	± 5° C(≤100° C), ± 20%(>100° C)	-	
Temperature Detection	6 Quadrangle ROI zones	6 Quadrangle ROI zones	-	
Additional	Hybrid palettes, Spot temperature reading	Hybrid palettes, Spot temperature reading	-	
WiseStream	Manual, WiseStream II			
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 10 profiles)			
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB			
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision open platform			
Memory	1024MB RAM, 256MB Flash			
Operating Temperature/ Humidity	-40° C ~ +60° C (-40° F ~ +140° F) / 0~90%RH(Non-condensing)			
Certification	IP66, IK10, NEMA4X			
Power Consumption	PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W			
Dimensions (WxHxD) / Weight	ø 101.97x401.8mm(4.01x15.82") / 3,175g(7.01lb)	ø 101.97x401.8mm(4.01x15.82") / 3,175g(7.01lb)	ø 101.97x401.8mm(4.01x15.82") / 3,124g(6.89 lb)	ø 101.97x401.8mm(4.01x15.82") / 3,124g(6.89 lb)



TNO-3050T
QVGA Thermal Bullet Camera



TNO-3040T
QVGA Thermal Bullet Camera



TNO-3030T
QVGA Thermal Bullet Camera



TNO-3020T
QVGA Thermal Bullet Camera

Imaging Device	Uncooled micro bolometer			
Resolution	320x240			
Max. Frame Rate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz), MJPEG: Max. 30fps			
NETD	<60mK			
Pixel Pitch	12μm			
Focal Length	35mm fixed focal	19mm fixed focal	13.7mm fixed focal	4.7mm fixed focal
Angular Field of View	H: 6.3° / V: 4.7° / D: 7.8°	H: 12° / V: 9° / D: 15°	H: 16.0° / V: 12.0° / D: 20.0°	H: 50.0° / V: 36.4° / D: 65.3°
Min. Object Distance	51m(167.32ft)	15m(49.21ft)	8m(26.25ft)	1m(3.28ft)
Video Output	CVBS: 1.0 Vp-p / 75Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.			
Analytics	Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Temperature detection			
Alarm I/O	Input 1ea / Output 2ea			
Audio I/O	Selectable(mic in/line in)			
Temperature Detect Range	-			
Temperature Accuracy	-			
Temperature Detection	-			
Additional	-			
WiseStream	Manual(5ea area), WiseStream II			
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 10 profiles)			
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB			
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform			
Memory	1024MB RAM, 256MB Flash			
Operating Temperature/ Humidity	-40° C ~ +60° C (-40° F ~ +140° F) / 0~90%RH(Non-condensing)			
Certification	IP66, NEMA4X	IP66, IK10, NEMA4X		
Power Consumption	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W			
Dimensions (WxHxD) / Weight	ø 147.51x401.3mm(5.81x15.79") / 2,742g(6.05lb)	ø 147.51x375.3mm(5.81x14.78") / 2,495g (5.50lb)	ø 147.51x375.3mm(58.07x147.76") / 2,512g(5.538lb)	ø 147.51x375.3mm(58.07x147.76") / 2,512g(5.538lb)



TNO-L3030T
QVGA Thermal Bullet Camera



TNO-3010T
QVGA Thermal Bullet Camera



TNO-4030TR
VGA Thermal Bullet Camera



TNO-L4030TR
VGA Thermal Bullet Camera



TID-600R
2MP Intercom

Imaging Device	Uncooled micro bolometer				1/2.8" CMOS
Resolution	320x240		640x480, 640x360, 320x240		2MP
Max. Frame Rate	H.265/H.264/MJPEG: Max. 8fps	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz), MJPEG: Max. 30fps	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz), MJPEG: Max. 30fps	H.265/H.264/MJPEG: Max. 8fps	H.265/H.264: Max. 60fps/50fps(60Hz/50Hz) MJPEG: Max. 30fps
NETD	<60mK		<50mK		—
Pixel Pitch	12μm		17μm		—
Focal Length	35mm fixed focal	2.7mm fixed focal	13mm fixed focal		1.6mm fixed focal
Angular Field of View	H: 16° / V: 12° / D: 20°	H: 92.0° / V: 65.5° / D: 125.7°	H: 48.6° / V: 36.4 / D: 61.6°		H: 180° / V: 114° / D: 180°
Min. Object Distance	8m(26.25ft)	0.3m(0.98ft)	5m(16.40ft)	5m(16.40ft)	0.3m (0.98ft)
Video Output	CVBS: 1.0 Vp-p / 75 Ω composite for installation, USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.				CVBS: 1.0Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation
Analytics	Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Loitering, Intrusion, Enter/Exit, Appear/Disappear), Virtual line(Crossing, Direction) , Temperature detection				
Alarm I/O	Input 1ea / Output 2ea				Input 2ea / Output 1ea, Relay out 1ea (12VDC Max. 550mA with 2A adapter), Tampering switch, Touchless call
Audio I/O	Selectable(mic in/line in)				Built-in mic / Built-in speaker: 85dB at 0.5m(1.64ft)
Temperature Detect Range	—		-20° C ~130° C(-4° F ~ 266° F)		—
Temperature Accuracy	—		± 5° C(≤100° C), ± 20%(>100° C)		—
Temperature Detection	—		6 Quadrangle ROI zones		—
Additional	—		Hybrid palettes, Spot temperature reading		—
WiseStream	Manual, WiseStream II				
Streaming	Unicast(20 users) / Multicast, Multiple streaming(Up to 10 profiles)				
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB				
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI(HTTP API), Hanwha Vision Open Platform				ONVIF Profile S, SUNAPI(HTTP API), Hanwha Vision Open Platform
Memory	1024MB RAM, 256MB Flash				—
Operating Temperature/ Humidity	-40° C ~ +60° C (-40° F ~ +140° F) / 0~90%RH(Non-condensing)				-30° C ~ +55° C(-22° F ~ +131° F) / 0~95% RH
Certification	IP66, IK10, NEMA4X				IP65, IK08, NEMA4X, Safety(UL), EMC(FCC, CE)
Power Consumption	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W		PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W		PoE: Max 12.95W, typical 9.1W, 12VDC: Max 17.6W, typical 7W * 12VDC power consumption includes 12VDC/550mA relay out.
Dimensions (WxHxD) / Weight	ø 147.51x375.3mm(5.81x14.78") 2,512g(5.538lb)		ø 101.97x401.8mm(4.01x15.82") 3,124g(6.89lb)		49(W)x165(H)x48(D)mm(1.93x6.50x1.89") / 490g(1.08lb)

DesignPro

Simplify Your Security System Planning

DesignPro is Hanwha Vision's next-generation cloud platform that transforms security system design with an intuitive interface and intelligent dashboards—from initial planning to final deployment. With enhanced capabilities for camera selection, field of view visualization, bandwidth calculation, and professional report generation, DesignPro enables integrators and security professionals to plan, design, and specify complete surveillance systems.

Streamlined Project Management

- Create and manage multiple projects simultaneously with cloud-based access.
- Access the complete Hanwha Vision camera and device catalog with live data.
- Set up reusable profiles and get instant device recommendations.
- Export/import project files for seamless team collaboration.

Intelligent System Estimation

- Automatic bandwidth calculation for accurate network planning.
- Storage capacity and retention time estimation.
- Power consumption (PoE) and network port requirements analysis.
- Real-time warnings for resource shortages and system limitations.

Visual Planning Tools

- Upload floor plans or use Google Maps for site layout and camera placement.
- Visualize field of view (FoV) beams with DORI zones (Detection, Observation, Recognition, Identification).
- Measure distances and add obstructions for accurate coverage planning.
- Colour-code camera groups and optimize positioning before installation.

Professional Reporting Suite

- Generate customizable quotations and Bill of Materials (BOM) for procurement.
- Export technical specifications and bandwidth reports for tender documents.
- Bulk download spec sheets and create map visualizations.
- Professional client-ready documentation in minutes.



Multi-site Health Monitoring and Maintenance Solution

HealthPro

HealthPro is a powerful cloud-based device health monitoring solution designed for organizations managing large-scale, multi-site security systems. HealthPro centralizes the monitoring, management, and maintenance of security infrastructure, like cameras, servers, and storage-across thousands of locations. Whether you're in retail, banking, transportation, or critical infrastructure, HealthPro helps you stay ahead of device issues, firmware updates, and warranty management-without the need for on-site intervention.



Total Visibility One Dashboard

- **Unified Monitoring**
Get a centralized, real-time overview of device health across thousands of locations.
- **Instant Drill-Down**
Instantly drill into cameras, servers, and storage to see issues, logs, and status at a glance.

Remote Fixes, No Travel Needed

- **Cloud Updates**
Remotely update firmware, reboot cameras, and manage devices—all through the cloud.
- **Cost Reduction**
Reduce operational costs by eliminating the need for on-site tech visits.

Prevent Downtime with Smart Alerts

- **Real-time Alerts**
Receive email and web push notifications when devices fail, degrade, or go offline.
- **Task Automation**
Assign and track tasks through workflows to ensure fast, accountable resolution.

Plan Ahead with Life Cycle Insights

- **Warranty Tracking**
Monitor warranty status and device age to prioritize replacements and upgrades.
- **Smart Reporting**
Export actionable reports for asset planning, budgeting, and compliance audits.



Scan this QR to learn more about HealthPro.



HealthPro
Multi-site health monitoring and maintenance

General	Product Name	HealthPro v 1.10
	Product Type	Software as a Service (SaaS)
	Cloud Service Provider	AWS (US region)
	Service Locations	North America, South Korea, Oceania, Europe
	User Interface	Supports all OS (Windows and Linux) and devices (PC, Tablet, Mobile) using Chrome, Edge, and Safari web browsers
	Supported Language	English, Korean, French, German, Spanish, Italian, Portuguese (Brazilian)
	Protocol	HTML5, CSS, JS, ARIA, DOM, Web APIs, HTTP, REST API, MIME type, JSON, WebSocket, XML, JSON, CSV, TLS, HTTPS, CORS, UTF-8, i18n, i10n, MQTTS, SUNAPI, VAPIX, i-PRO CGI, WAVE HTTP REST API
Scalability	Network Connection *A firewall exception is required.	Source / Destination / Port / Application: HealthPro Bridge / *.hanwhavision.cloud / TCP 443 / HTTPS HealthPro Bridge / *.hanwhavision.cloud / TCP 443 / MQTTS HealthPro Bridge / *.s3.amazonaws.com / TCP 443 / HTTPS Web Browser / *.hanwhavision.cloud / TCP 443 / HTTPS Web Browser / *.hanwhavision.cloud / TCP 443 / WSS Web Browser / *.hanwhavision.cloud / TCP 443 / HTTP Web Browser / maps.gstatic.com / TCP 443 / HTTPS Web Browser / fonts.gstatic.com / TCP 443 / HTTPS Web Browser / maps.googleapis.com / TCP 443 / HTTPS
	# of Locations per Org.	5,000
	# of Devices per Org.	20,000
	# of Users per Org.	1,000
	# of Clients (web) per Org.	Unlimited
Compatible Devices	Hanwha Vision	SUNAPI v2.6.0+ Camera & NVR via HealthPro Bridge or D2C
	Hanwha Vision VMS	WAVE v5+ via HealthPro Bridge or WAVE Sync account
	3rd Party	VAPIX v1.0+, i-PRO CGI v1.14+, Onvif Camera, Allied Telesis PoE (SNMP v2c) via HealthPro Bridge
	HealthPro Bridge v1.10	- Free Software for Cloud Connectivity - Web & Node.js with CloudConnector (Some components use C#.NET Framework, MS VisualC++) - Supported Language: English, Korean, French, German, Spanish, Italian, Portuguese (Brazilian) - # of Devices per Software: 200+ - Supported Devices: Hanwha Vision Camera, WAVE VMS, 3rd Party Camera (AXIS, i-PRO, Onvif), NVR, Allied Telesis (PoE) - Server (OS): Windows 10 to 11 Pro+ incl. Windows Server 2016 to 2025 Standard+, x86-64 Ubuntu Linux 22.04 LTS+ - Client: Web Browser, Installed Application - DBMS: SQLite (Encrypted with AES-256) - Protocol: HTTP(S), SUNAPI, WAVE REST API, VAPIX, i-PRO CGI, Onvif, SNMP (v2c) - Requirements: Intel i3-10100, 16GB RAM, SSD with at least 1GB of Free Space, 100Mbps+ Wired Network

Features	Dashboard	Location, Server, Camera, Update, License, Life cycle
	Widget	Server, Storage, Camera, Update, License, Life cycle, Notification
	Health Monitor (Server & Storage, Camera)	Hanwha Vision Camera & NVR (SUNAPI v2.6.0+ via HealthPro Bridge or D2C), 3rd Party Camera (VAPIX v1.0+, i-PRO CGI 1.14+, Onvif via HealthPro Bridge), WAVE VMS (v5+ via HealthPro Bridge or WAVE Sync account)
	Policy Management	Auto Software (Firmware) Update, Auto Image Health Check
	Life cycle Management	Hanwha Vision Camera w/ STEP Code
	License Management	Hanwha Vision Camera, 3rd Party Camera (AXIS, i-PRO, Onvif)
	Task Management	Create / Assign / Resolve 10 Types of Tasks: Camera Disconnected, Camera IP Conflict, Authentication Issue, Network Issue, Server Certification Error, Server Conflict, Server Failure, Storage Issue, Device Disconnected, Image Health Issue
	Notification	Notification Center, Email, Web Push, In-app
	Remote Control	Hanwha Vision, AXIS, i-PRO, Onvif Camera: Stream & Codec, Motion & Object detection, Password, Focus, Bestshot, SUNAPI Command, Reboot & Power Cycling w/ Allied Telesis PoE
	Logs	User, Device, Task, Health, Resource
Data *No video & images are stored on the cloud platform.	Report	Automated Summary Reports via Email, CSV Download of Data Lists in All Menus
	Map View	Google Map
	Personal Information	Name, Email, Role, Phone (Optional), Photo (Optional)
	Device Information	Online Status, Manufacture, Model, Serial Number, Software Version, Device Name, Network Information, Live Image, Flash Memory & Record Status, CPU & RAM Usage, Open Platform Apps Status, AI Apps Status, Warranty, Power Usage, VMS & NVR Record Status, Image Health Status
	Logs (reprocess device information)	Event / Type, Time, User / Device information
Cybersecurity	Stored Data (DB) Protection	Database Encryption and Access Control
	Data Transmission Protection	TLS-based Encrypted Communication
	Server Protection	Security Patching, Access Control, and Enhanced Authentication
	Network Protection	VPC, Security Groups, and Firewall Policy Implementation
	Managed Security	24/365 from a Certified Professional Company
High Availability	Redundancy	Redundant Configuration of Servers and Services
	Data Backup	Regular Backups and Disaster Recovery Policies in Place

High performance NVR

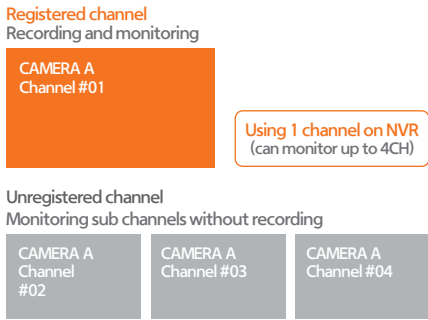
High resolution and great efficiency.
Quick and precise search enabled by
Hanwha Vision NVR

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



Monitor all sub channels without registering them all

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



Installation Wizard for easy auto recognition and setup

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



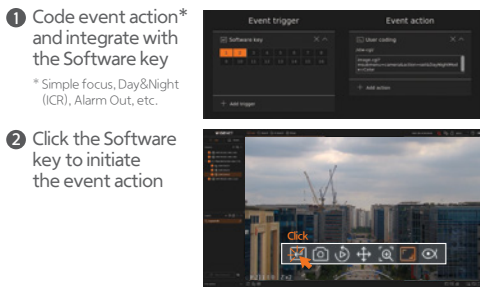
Design your own monitoring channels with the Dynamic layout

Dynamic layout allows users to freely customise the channel display. Set the best channel display and create the most intuitive monitoring environment.



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

Users can code their own event action using SUNAPI commands and integrate it with the Software Key. Then, a simple click on the Software Key appears on the channel display will run the event action. Customized codes run separately.



	XRN-6420DB4 64CH NVR with 12th gen. Intel® Processor	XRN-6420B4 64CH NVR with 12th gen. Intel® Processor	XRN-6420RB2 64CH NVR with 12th gen. Intel® Processor	XRN-6420B2 64CH NVR with 12th gen. Intel® Processor	XRN-3220B4 32CH NVR with 12th gen. Intel® Processor
OS	Linux				
Supported Compression	H.265, H.264, MJPEG				
Max. Recording Bit Rate	520Mbps	520Mbps	520Mbps	520Mbps	Distributed mode : Up to 520 Mbps Normal mode : Up to 300 Mbps [RAID mode] Normal : Up to 520 Mbps Degrade/ Rebuild : Up to 520 Mbps
Max # of Cameras	64CH	64CH	64CH	64CH	32CH
Network Camera Resolution	32MP~CIF				
HDD Slot	SATA 16ea(Max. 160TB, Non-RAID mode)	SATA 16ea(Max. 160TB, Non-RAID mode)	SATA 8ea(Max. 80TB, Non-RAID mode)	SATA 8ea(Max. 80TB)	SATA 16ea(Max. 160TB, Non-RAID mode)
Record Mode	Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark				
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event				
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown				
External Storage	iSCSI				
RAID	RAID-5/6(Array Size : 8 HDDs x 2 Array)	RAID-5/6(Array Size : 8 HDDs x 2 Array)	RAID-5/6(Single, 1 Array)	-	RAID-5/6(Array Size : 8 HDDs x 2 Array)
Hot Swap	Support	Support	Support	-	Support
Network Viewer Software	WAVE, SSM, Webviewer, Wisenet Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3rd party VMS				
Local Display	[Dual Display] HDMI 1: 3840 x 2160 (30Hz) HDMI 2: 1920x1080 (60Hz)				
Network Camera Protocol	SUNAPI, ONVIF				
Power Input	100 ~ 240 VAC ± 10%; 50/60 Hz, 2.7A (Dual SMPS)	100 ~ 240 VAC ± 10%; 50/60 Hz, 2.7A (Single SMPS)	100 ~ 240 VAC ± 10%; 50/60Hz, 1.7A(Single SMPS)	100 ~ 240 VAC ± 10%; 50/60Hz, 1.5A(Single SMPS)	100 ~ 240 VAC ± 10%; 50/60Hz, 2.7A(Single SMPS)
Power Consumption	Max. 265W (904.2 BTU with HDD 16ea)	Max. 265W (904.2 BTU with HDD 16ea)	Max. 162W (553BTU with HDD 8ea)	Max. 143W (488BTU with HDD 8ea)	Max. 265W (904.2 BTU with HDD 16ea)
PoE Budget	-				
Additional Features	- N+1 failover supported - PTZ camera configuration and control - Dynamic layout - Virtual channel view - ARB(Auto Recovery Backup) supported				

					
	XRN-3220RB2 32CHNVR with 12th gen. Intel® Processor	XRN-3220B2 32CHNVR with 12th gen. Intel® Processor	XRN-1620SB1 16CHNVR	XRN-1620B2 16CHNVR	XRN-820S 8CHNVR
OS	Linux				
Supported Compression	H.265, H.264, MJPEG				
Max. Recording Bandwidth	Distributed mode : Up to 520 Mbps Normal mode : Up to 300 Mbps [RAID mode] Normal : Up to 520 Mbps Degrade/ Rebuild : Up to 520 Mbps	Distributed mode : Up to 520 Mbps, Normal mode : Up to 300 Mbps	140Mbps	140Mbps	120Mbps
Max # of Cameras	32CH	32CH	16CH	16CH	8CH
Network Camera Resolution	32MP~CIF				
HDD Slot	SATA 8ea(Max. 80TB, Non-RAID mode)	SATA 8ea(Max. 80TB)	SATA 4ea(Max. 24TB)	SATA 8ea(Max. 80TB)	SATA 2ea(Max. 12TB)
Record Mode	Normal, Dual Stream, Schedule(Continuous/ Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule(Continuous/ Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule(Continuous/ Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule(Continuous/ Event), Event (Pre/Post)	Normal, Dual Stream, Schedule(Continuous/ Event), Event (Pre/Post)
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event				
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown				
External Storage	iSCSI storage	iSCSI storage	-		
RAID	RAID-5/6(Single, 1 Array)	-	RAID-1	-	RAID-1
Hot Swap	Support	-			
Network Viewer Software	WAVE, SSM, Webviewer, Wisenet Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS	WAVE, SSM, Webviewer, Wisenet Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS	WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS	WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS	WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS
Local Display	[Dual Display] HDMI 1: 3840 x 2160 (30Hz) HDMI 2: 1920x1080 (60Hz)	[Dual Display] HDMI 1: 3840 x 2160 (30Hz) HDMI 2: 1920x1080 (60Hz)	FHD : HDMI & VGA Dual monitor UHD : HDMI Single monitor	FHD : HDMI & VGA Dual monitor UHD : HDMI Single monitor	FHD : HDMI & VGA Dual monitor UHD : HDMI Single monitor
Network Camera Protocol	SUNAPI, ONVIF				
Power Input	100 ~ 240 VAC ± 10%; 50/60Hz, 1.7A(Single SMPS)	100 ~ 240 VAC ± 10%; 50/60Hz, 1.5A(Single SMPS)	100 ~ 240 VAC ± 10%; 50/60 Hz	100 ~ 240 VAC ± 10%; 50/60 Hz	100 ~ 240 VAC ± 10%; 50/60 Hz
Power Consumption	Max. 162W (553BTU with HDD 8ea)	Max. 143W (488BTU with HDD 8ea)	130W	130W	Max. 160W
PoE Budget	-		200W	-	100W
Additional Features	- N+1 failover supported - PTZ camera configuration and control - Dynamic layout - Virtual channel view - ARB(Auto Recovery Backup) supported		- PoE supported - N+1 failover supported - PTZ camera configuration and control - Dynamic layout - Virtual channel view - ARB(Auto Recovery Backup) supported	- N+1 failover supported - PTZ camera configuration and control - Dynamic layout - Virtual channel view - ARB(Auto Recovery Backup) supported	- PoE supported - N+1 failover supported - PTZ camera configuration and control - Dynamic layout - Virtual channel view

					
	XRN-815S 8CHNVR	XRN-420S 4CHNVR	QRN-1630S 16CHNVR	QRN-830S 8CHNVR	QRN-430S 4CHNVR
OS	Linux				
Supported Compression	H.265, H.264, MJPEG				
Max. Recording Bit Rate	100Mbps	50Mbps	128Mbps	80Mbps	40Mbps
Max # of Cameras	8CH	4CH	16CH	8CH	4CH
Network Camera Resolution	12MP ~ CIF	8MP ~ CIF	8MP ~ CIF	8MP ~ CIF	8MP ~ CIF
HDD Slot	SATA 2ea(Max. 20TB)	SATA 1ea(Max. 6TB)	SATA 2ea(Max. 20TB)	SATA 1ea(Max. 6TB)	SATA 1ea(Max. 6TB)
Record Mode	Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark				
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event(Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event(Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event(Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	-				
RAID	-				
Hot Swap	-				
Network Viewer Software	WAVE, SSM, Webviewer, Smart Viewer, Wisenet Viewer, Wisenet mobile, Support CGI(SUNAPI) for integration to 3'rd party VMS				
Local Display	HDMI1: 3840x2160(30Hz), HDMI2: 1920x1080(60Hz)	HDMI, VGA	HDMI1: 3840x2160(30Hz), HDMI2: 1920x1080(60Hz)	HDMI1: 3840x2160(30Hz), HDMI2: 1920x1080(60Hz)	HDMI
Network Camera Protocol	SUNAPI, ONVIF				
Power Input	100 ~ 240 VAC ± 10%; 50/60 Hz			54VDC / 1.55A	100 ~ 240 VAC ± 10%; 50/60 Hz
Power Consumption	Max 165W (563 BTU with 2HDD, PoE On)	Max 67W(1HDD, PoE On)	Max. 200W(682 BTU with 2HDD, PoE ON)	Max 84W (287 BTU with 1HDD, PoE ON)	Max 52W (1HDD, PoE On)
PoE Budget	100W	50W	130W	65W	35W
Additional Features	- PoE supported - N+1 failover supported - PTZ camera configuration and control - Dynamic layout - ARB(Auto Recovery Backup) supported		- PoE supported - N+1 failover supported - PTZ camera configuration and control - ARB(Auto Recovery Backup) supported - Easy configuration(P2P(QR code))		

Encoder



	SPE-1630 16CH Encoder	SPE-420 4CH Encoder
Max. # of Cameras	16	4
Supported Compression	H.265, H.264 (MPEG-4 Part 10/AVC) : Main / Baseline / High, MJPEG	H.265, H.264 (MPEG-4 Part 10/AVC) : Main / Baseline / High, MJPEG
Max. Resolution	5MP/4MP/1080p/720p/WD1/4CIF/CIF	5MP/4MP/1080p/720p/WD1/4CIF/CIF
Max. Frame Rate per Channel	5MP : 12fps/CH, 4MP : 15fps/CH(N),12fps/CH(P) 1080p/720p/WD1/4CIF/CIF : 30fps/CH(N), 25fps/CH(P)	5MP : 12fps/CH, 4MP : 15fps/CH, 1080p/720p/WD1/4CIF/CIF : 30fps/CH(N), 25fps/CH(P)
Audio I/O	4 Line Input / 1 Line Output	4 Line Input / 1 Line Output
RS-485	Support	Support
Alarm I/O	16 Input/ 4 Output(1 NO/COM/NC, 3 NO/COM)	4 Input / 2 Output(1 NO/COM/NC, 1 NO/COM)
Application Programming Interface	ONVIF profile S, SUNAPI (HTTP API)	ONVIF profile S, SUNAPI (HTTP API)
Power	MAX: 20W (12V, 1.67A)	MAX: 5W (12V, 0.417A)

Decoder



	SPD-152 1 Monitor Decoder
Video Out	HDMI (2ea)
Resolution	HDMI#1 1EA (up-to 4K), Audio support HDMI#2 1EA (up-to 1080p), Audio not supported
Display	[Max. Decoding Performance] 8M@60fps, 12ch*2MP@30fps [Division/Monitor] Clone mode : (HDMI#1) Max. 64, Expand mode : (HDMI#1) Max. 36, (HDMI#2) Max. 25
Power	12VDC, PoE (IEEE802.3af)

AI Box



	AIB-800 AI Box
Inputs	Max. 8CH
Resolution	CIF ~ 32MP
Protocols	SUNAPI, ONVIF
Analytics	Classified object type : Person/Face/Vehicle/License plate, Attributes : Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support Bestshot Analytics events based on AI engine : Motion Detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) * Some of the video analytics only works with people/vehicle detection Analytics events : Virtual area(Appear/Disappear) Business Intelligence (Based on AI engine) : People counting, Vehicle counting, Queue management, Heatmap
Protocol	TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, Client), SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI(Server, Client), SRTP
DDNS	Hanwha Vision DDNS
Max Manipulated Streams	80 Streams (10 Streams per 1CH)
IP Version	IPv4/v6
Security	IP address filtering, User access Log, 802.1x, Encryption, Device certificate(Hanwha Vision Root CA)
OS	Windows 11/10, macOS 10.13
Web Browser	Google Chrome, Microsoft Edge, Mac Safari
Viewer/CMS	WebViewer, WAVE, SSM, Genetec, Milestone Support SDK/CGI(SUNAPI) for interworking with 3'rd party VMS
Ethernet	RJ-45 1ea (1Gbps)
Alarm	(1) In(8EA, Terminal Block), (2) Alarm Reset(1EA), (3) Out(4EA, Terminal Block) – Relay Out1(NO/NC/COM) – Relay Out2~4(NO/COM)
USB	1EA(Rear 1 x USB 3.0) for DEBUG
Log List	Max. 3,000 (System 1,000, Access 1,000, EVENT 1,000)
CPU	NVIDIA ORIN NX 8GB (SOM)
Operating Temperature / Humidity	+0° C~+40° C(+32°F~+104°F), 20% ~ 85% RH
Power Consumption	100 ~ 240 VAC ± 10%; 50/60 Hz, 12V, 4A Adaptor, 28W
Colour / Material	Black / Metal
Product Dimensions / Weight	300 x 47.6 x 240.9 mm (11.81 x 1.87 x 9.48 inch), 1.39kg

Audio Beacon



	SPS-A100M Audio Beacon
Resolution	1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360
Max. Framerate	Static image video H.265/H.264: Max. 10fps MJPEG: Max. 5fps
Video Out	USB: Micro USB Type C, setting true north point using Wisenet installation
Analytics	AI Sound Classification - Classified sound type: Crashing glass, Screaming, Vehicle horn, Tire screech Extreme decibel detection - Event metadata: Sound type, Sound direction, Confidence, Timestamp, Best sound(audio file), dB(± 10dB) - Sound direction(Celling mounting: ± 15 degrees)
Alarm I/O	2 configurable I/O ports
Alarm Triggers	Analytics, Network disconnect, Alarm input, App event(Sound classification), Time schedule, MQTT subscription, Case tampering
Alarm Events	When alarm trigger occurred - File upload(audio): e-mail/FTP - Notification: e-mail - Alarm output - Handover: PTZ preset, send message by HTTP/HTTPS/TCP - Audio clip playback(6MB, WAV) - MQTT: publication - LED - Speaker
Audio Streaming	Two-way/one-way selectable, Full duplex, Echo cancellation, and noise reduction
Audio In	Five built-in MEMS MICs
Audio Out	Built-in speaker - Max. Sound Pressure Level 90dB at 1m(3.28ft) - Frequency Range: 144Hz~20kHz
Light Type	LED Ring(Green, Blue, Red, Pink, Sky blue, Purple), for event action
Audio Compression	G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps AAC-LC: 48Kbps at 16KHz
Application Programming Interface	ONVIF Profile S, SUNAPI(HTTP API) Wisenet open platform – AI Sound Classification pack included
Operating Temperature / Humidity	-20°C ~ +55°C (-4°F ~ +122°F) / Less than 90% RH
Input Voltage	PoE+(IEEE802.3at, Class4)
Power Consumption	PoE+: Max 18.5W, typical 8.2W
Product Dimensions / Weight	215.1(W)x135.1(D)x52.8(H)mm(8.47"x5.32"x2.08") / 973g(2.15 lb)



Extreme
Decibel Detection



Screaming

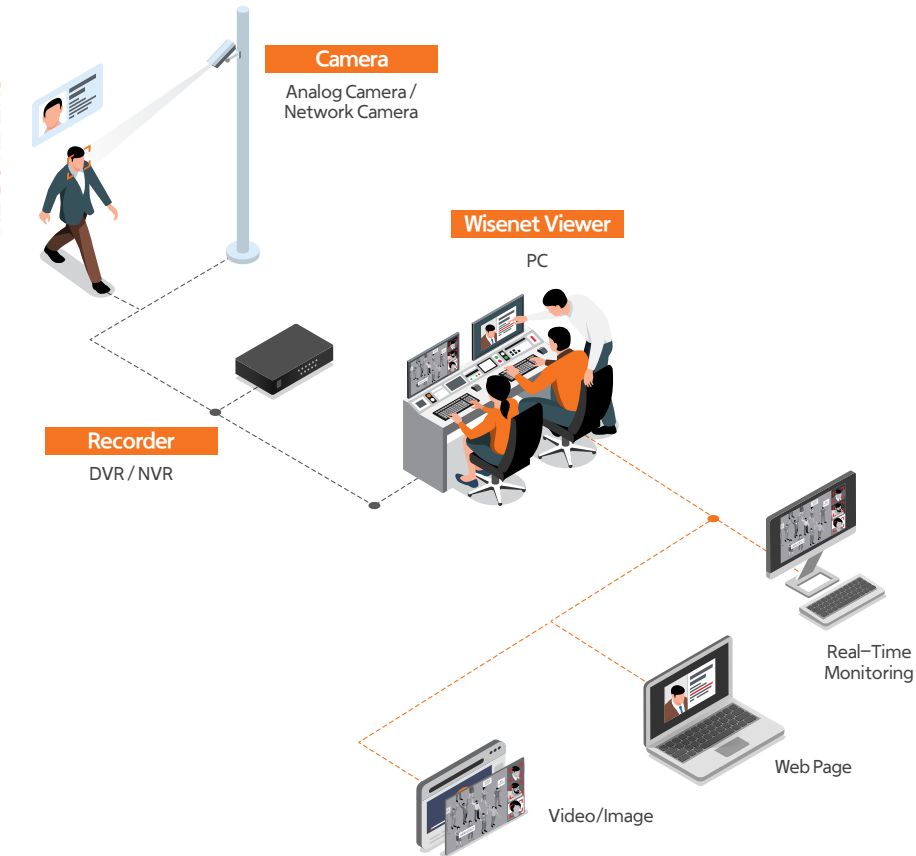


Glass Break Detection



Wisenet Viewer

Costless yet powerful NVR·DVR Management Software



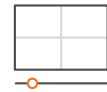
Monitoring with PC gets easier

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

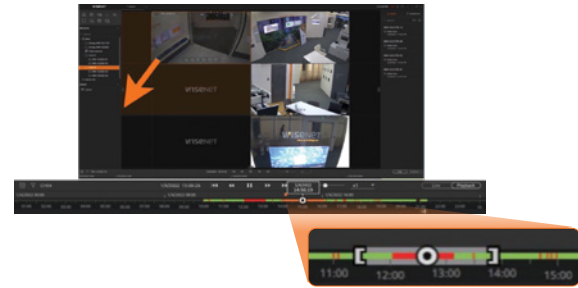


Available on Windows, macOS, Linux

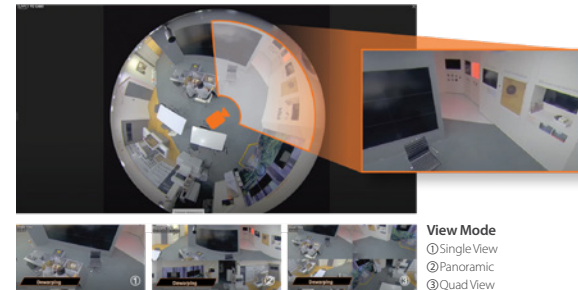
Effective monitoring with essential features



Customizable channel layout & Timeline



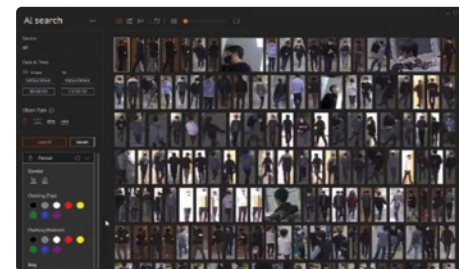
Easy monitoring with Fisheye Dewarping



View Mode
① Single View
② Panoramic
③ Quad View



Intelligent monitoring powered by AI Search



Wisenet WAVE

Video Management System

Intuitive and Easy to Use

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

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

An Operating System to Suit Your Needs

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



WAVE Sync

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



Desktop

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



Mobile

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



Server

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

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

BLAZE Hybrid AI VMS

- AI-Native VMS Built for the Future
- Seamless Integration Across the Hanwha Ecosystem
- Scalable Multi-Site Operations
- Purpose-Built Appliances for Simplified Deployment



Wisenet SSM

Ideal choice for integrated monitoring

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



Cost Competitiveness

Offer major features of video surveillance in reasonable price

One time licensing cost
(No cost for upgrades and maintenance)

High quality VMS features for the price

High Reliability

Superb device compatibility offered as a VMS of device manufacturer

Integrated operation of H/W and S/W for efficient maintenance and management

Dashboard that can monitor device status

Convenient Operation

A single manufacturer providing unified user experience

Be the first to use the latest device features

Offer various solutions for user environments

AI video search

Connect **Hanwha Vision** AI cameras to SSM for various search features adopting AI algorithms.

• Best Shot search using unique attributes

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



SSM search
Support quick search using attributes



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

Parking management solution

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

• Vehicle management & event search

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

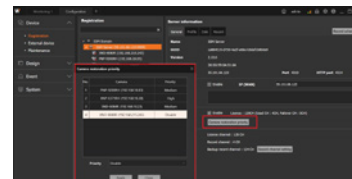


Stable monitoring

SSM provides safe and stable monitoring environment through Failover.

• Vehicle management & event search

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



IP Audio System

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



TTS
Text To Speech



PoE & PoE+
Dual Support +



SIP
PBX integration



Scheduler
Day, Week, Month and Year

Motion Detection

Please stay away from the fence

IP Speakers



SPA-C100B / SPA-C100W
Ceiling Speaker



SPA-P100B/SPA-P100W
Pendant speaker



SPA-W100B / SPA-W100W
Wall speaker



SPA-H100B/SPA-H100W
Horn speaker

Amplifier	Built in 10W Class D			
Ethernet	10/100 Base-T			
Internal Memory	1 GBytes			
Max. Sound Pressure Level	100dB	100dB	101dB	124dB
Frequency Range (-10dB)	120Hz~20kHz	120Hz~20kHz	120Hz~20kHz	650Hz~5.3kHz
Sensitivity (1Watt)	90dB	90dB	91dB	111dB
Power	PoE/ PoE+			
TTS	English(US, UK), German, French, Spanish, Russian			
Plenum Rating Certificate	-			

IP Audio Module



SPA-D1000
IP Audio Module

Amplifier	Built in 10W Class D
Power	PoE (IEEE 802.3 af type 1 Class 3), PoE+(IEEE 802.3 at type 2 Class 4)
Multi-source Dynamic PA control	Multi-source up to 48 (Multicast) (Audio 24CH + Mic 24CH) Up to 256 Zone Control (Multicast) Up to 20 Zone Control (Unicast) Up to 255 Groups
TTS	English(US, UK), German, French, Spanish, Russian

IP Audio Server



SPA-S1000
IP Audio Server

Ethernet	10/100 Base-T
Power	AC 120-240V, 50/60Hz, 10W DC 24V, 350mA
Multi-source Dynamic PA control	Multi-source up to 48 (Multicast) (Audio 24CH + Mic 24CH) Up to 256 Zone Control (Multicast) Up to 20 Zone Control (Unicast) Up to 255 Groups

SIP Microphone



SPA-M2000
SIP Microphone

Max input Level	AUX (Input Volume Max) -7dBV
Supported Protocols	IPv4, HTTP, HTTPS, SIP, mDNS, DNS, NTP, TCP, UDP, DHCP, ARP, ICMP
Power	Max. 12W, DC24V PoE (IEEE 802.3 af type 1 Class 3)

IP Audio Bridge



SPA-B1000
IP Audio Bridge

Power	PoE (IEEE 802.3 af type 1 Class 3) DC 24V, Max 10W
Supported Audio Format	File Streaming : WAV, MP3 in mono/stereo from 64 kbps to 320 kbps. Sampling rate from 16 kHz up to 48 kHz
Supported Protocols	IPv4, HTTP, HTTPS, mDNS, DNS, NTP, TCP, UDP, DHCP, ARP, ICMP



HCB-7000A
4MP Box Camera



HCO-7070RA
4MP IR Bullet Camera



HCO-7010RA/20RA/30RA
4MP IR Bullet Camera



HCD-7070RA
4MP IR Dome Camera



HCD-7010RA/20RA/30RA
4MP IR Dome Camera

Imaging Device	1/3" CMOS				
Resolution	2560 x 1440				
Min. Illumination	Colour : 0.16Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCO-7010R) 0.27Lux (F2.0) (HCO-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCD-7010RA) 0.27Lux (F2.0) (HCD-7020R/7030RA) B/W : 0Lux (IR LED on)
Focal Length	-	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCO-7010R) 4.0mm fixed (HCO-7020R) 6.0mm fixed (HCO-7030R)	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCD-7010RA) 4.0mm fixed (HCD-7020RA) 6.0mm fixed (HCD-7030RA)
Angular Field of View	-	H : 93.48° (Wide) ~ 29.44° (Tele) V : 50.47° (Wide) ~ 16.64° (Tele) D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCO-7010RA) H : 78.22° / V : 41.21° / D : 87.91° (HCO-7020RA) H : 49.01° / V : 27.61° / D : 55.6° (HCO-7030RA)	H : 93.48° (Wide) ~ 29.44° (Tele) V : 50.47° (Wide) ~ 16.64° (Tele) D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCD-7010RA) H : 78.22° / V : 41.21° / D : 87.91° (HCD-7020RA) H : 49.02° / V : 27.61° / D : 55.6° (HCD-7030RA)
Pan / Tilt / Rotate	-			0° ~ 350° / 0° ~ 63° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)	20m (65.62ft) (HCD-7010RA) 25m (82.02ft) (HCD-7020RA) 30m (98.43ft) (HCD-7030RA)
Day & Night	Auto (ICR)				
Backlight Compensation	BLC/HLC/DWDR				
Digital Noise Reduction	2D DNR				
Motion detection	Support				
Privacy Masking	2 Zones				
Alarm I/O	0/1	0/1	0/0	0/1	0/0
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)			
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	-	IP66, IK10	IP66, IK10	-	-
Power Consumption	12VDC & 24VAC : Max 3.6W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5W
Dimensions (WxHxD) / Weight	W 59.6 x H 68.4 x 92.7mm (2.35" x 2.69" x 3.65") 186g (0.41 lb)	ø 78 x 259.8mm (ø 3.07" x 10.23") (Without sunshield) 914g (2.02lb)	ø 70 x 246mm (ø 2.76" x 9.69") (Without sunshield) 670g (1.48lb)	ø 119.8 x 98.5mm (ø 4.72" x 3.88") 320g (0.71lb)	ø 110.1 x 86.1mm (ø 4.33" x 3.39") 240g (0.53 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	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)

					
	HCV-7070RA 4MP IR Vandal Dome Camera	HCV-7010RA/20RA/30RA 4MP IR Vandal Dome Camera	HCB-6001 2MP Box Camera	HCB-6000 2MP Box Camera	HCO-6080R 2MP IR Bullet Camera
Imaging Device	1/3" CMOS	1/3" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution	2560 x 1440	2560 x 1440	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCV-7010R) 0.27Lux (F2.0) (HCV-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	3.2 ~ 10mm (3.1x) varifocal	2.8mm (HCV-7010R) 4.0mm (HCV-7020R) 6.0mm (HCV-7030R)	–	–	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 93.48° (Wide) ~ 29.44° (Tele) V : 50.47° (Wide) ~ 16.64° (Tele) D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCV-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCV-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCV-7030R)	–	–	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 63° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	–	–	–
IR Viewable Length	30m (98.43ft)	20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	–	–	30m (98.43ft)
Day & Night	Auto (ICR)				
Backlight Compensation	BLC / HLC / DWDR	BLC/HLC/DWDR	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	2D DNR	2D DNR	SSNRIV	SSNRIV	SSNRIV
Motion detection	Support				
Privacy Masking	2 Zones	2 Zones	4 Zones	8 Zones	8 Zones
Alarm I/O	MD Output 1				
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485 : Samsung T, Pelco D/P, Panasonic, Bosch , Honeywell, Vicon, GE, AD	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485 : Samsung T, Pelco D/P, Panasonic, Bosch , Honeywell, Vicon, GE, AD	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +60°C (-22°F ~ +140°F)
Certification	IP66, IK10	IP66, IK10	–	–	IP66, IK10
Power Consumption	12VDC & 24VAC : Max 5.8W	12VDC : Max 5W	12VDC & 24VAC : Max 6W	12VDC & 24VAC : Max 3.5W	12VDC & 24VAC : Max 5.8W
Dimensions (WxHxD) / Weight	ø 137 × 106.1mm (ø 5.39" × 4.18") 715g (1.58 lb)	ø 120.3 x 91.7mm (ø 4.74" x 3.61") 510g (1.12lb)	W 130.9×H 73.1×D 67.2mm (5.15" × 2.88" × 2.65") 287g (0.63 lb)	W 68.4×H 59.6 ×D 92.7mm (2.69" × 2.35" × 3.65") 186g (0.41 lb)	ø 78 x 259.8mm (ø 3.07" x 10.23") (Without sunshield) 914g (2.02lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable), Simple Focus	Video Transmission up to 500m (5C2V Coaxial Cable), Simple Focus	Video Transmission up to 500m (5C2V Coaxial Cable), Simple Focus	Video Transmission up to 500m (5C2V Coaxial Cable), Simple Focus	Video Transmission up to 500m (5C2V Coaxial Cable), Simple Focus

						
	HCO-6070R 2MP IR Bullet Camera	HCO-6020R 2MP IR Bullet Camera	HCD-6080R/6070R 2MP IR Dome Camera	HCD-6020R 2MP IR Dome Camera	HCD-6010 2MP Dome Camera	HCV-6080R/6070R 2MP IR Vandal Dome Camera
Imaging Device	1/2.8" CMOS					
Resolution	1920 x 1080					
Min. Illumination	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.27Lux (F2.0) B/W : 0.017 Lux (F2.0)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	3.2 ~ 10mm (3.1x) varifocal	4mm fixed (F1.6)	3.2 ~ 10mm (3.1x) varifocal	4mm fixed (F1.6)	2.8mm fixed (F2.0)	3.2 ~ 10mm (3.1x) varifocal
Angular Field of View	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.7° / V : 61.5° / D : 134.5°	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	–	–	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	–	30m (98.43ft)
Day & Night	Auto (ICR)					
Backlight Compensation	WDR (120dB)					
Digital Noise Reduction	SSNRIV					
Motion detection	Support					
Privacy Masking	8 Zones					
Alarm I/O	0/1	–	0/1	–	–	0 / 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)				AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	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)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Certification	IP66, IK10	IP66	–	–	–	IP66, IK10
Power Consumption	12VDC & 24VAC : Max 6W	12VDC : Max 5.4W	12VDC & 24VAC : Max 5.8W (HCD-6080R) 12VDC & 24VAC : Max 4.2W (HCD-6070R)	12VDC : Max 5.4W	12VDC : Max 3.6W	12VDC & 24VAC : Max 5.8W (HCV-6080R) 12VDC & 24VAC : Max 4.2W (HCV-6070R)
Dimensions (WxHxD) / Weight	ø 78 x 259.8mm (ø 3.07" x 10.23") (Without sunshield) 914g (2.02lb)	ø 58.6 x 165.2mm (ø 2.31" x 6.5") (Without sunshield) 279g (0.62 lb)	ø 119.8 x 98.5mm (ø 4.72" x 3.88") 330g (0.73lb) (HCD-6080R) 320g (0.71lb) (HCD-6070R)	ø 110 x 86mm (ø 4.33" x 3.39") 227g (0.71lb)	ø 110 x 86mm (ø 4.33" x 3.39") 221g (0.49lb)	ø 137 x 106.1mm (ø 5.39" x 4.18") 725g (1.60lb) (HCV-6080R) 715g (1.58lb) (HCV-6070R)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable), Simple Focus (HCD-6080R only)					

					
	HRX-1635 16CH Pentabrid DVR	HRX-1634 16CH Pentabrid DVR	HRX-835A 8CH Pentabrid DVR	HRX-435 4CH Pentabrid DVR	HRX-434 4CH Pentabrid DVR
OS	Linux				
Compression	H.265, H.264, MJPEG				
Signal Type	AHD(8MP, 5MP, 4MP, 1080p, 720p) HDTVI(8MP, 5MP, 4MP, 1080p, 720p) HDCVI(5MP, 4MP, 1080p, 720p) CVBS(NTSC/PAL)				
Inputs	Analog Camera – 16CH(1Vp–p 75ohm, BNC) Network Camera – 2CH (Up to 18CH)		Analog Camera – 8CH(1Vp–p 75ohm, BNC) Network Camera – 2CH (Up to 10CH)	Analog Camera – 4CH(1Vp–p 75ohm, BNC) Network Camera – 2CH (Up to 6CH)	
Record Rate	(Main Stream, NT/PAL) 8M 8/8fps, 5M 12/12fps, 4M 15/12fps, 2M 30/25fps, 720p 30/25fps, Under 960H 30/25fps/CH (Sub Stream) 720p/CH or Higher : 640x368 Full fps, SD : up to SD Full fps * The maximum recording framerate depends on the frame rate of the input camera.				
HDD Slot	SATA 8ea(Max. 48TB)	SATA 2ea(Max. 12TB)	SATA 4ea(Max 24TB)	SATA 2ea(Max 12TB)	SATA 1ea(Max 6TB)
Viewer Software	SSM, Webviewer, Wisenet Mobile, Wisenet Viewer				
Local Display	1x HDMI, 1x VGA (Dual monitor) HDMI: 3840 x 2160, 2560x1440, 1920x1080, 1280x1024, 1280x720 VGA: 1920x1080, 1280x1024, 1280x720, 1024x768			1x HDMI, 1x VGA (simultaneous output) HDMI: 3840 x 2160, 2560x1440, 1920x1080, 1280x1024, 1280x720 VGA: 1920x1080, 1280x1024, 1280x720	
Audio In/Out	16 Line in (RCA 4 Line, Option : Audio Extension Cable) / 1Line line out	4 Line in / 1 Line out	8 Line in (RCA 4 Line, Option : Audio Extension Cable) / 1Line line out	4 Line in / 1 Line out	4 Line in / 1 Line out
Alarm In/Out	In 16EA, Out 4EA – Relay Out1(NO/NC/COM) – Relay Out2~4(NO/COM)		In 8EA, Out 4EA – Relay Out1(NO/NC/COM) – Relay Out2~4(NO/COM)	In 4EA, Out 2EA – Relay Out1(NO/NC/COM) – Relay Out2(INO/COM)	In 4EA, Out 1EA – Relay Out1(NO/NC/COM)
N/W Camera Support	SUNAPI, ONVIF				
Additional Features	-				

LED Monitor

LED Monitor



SMT-4345

43" UHD Monitor with 2 Windows PIP/PBP



SMT-3240

32" UHD Monitor



SMT-2740

27" UHD Monitor

Screen Size	43"	32"	27"
Max. Resolution	3840x2160	3840 x 2160	3840 x 2160, 60Hz (UHD)
Brightness	300 cd/m²	300 cd/m²	300 cd/m²
Contrast Ratio	1200:1	1000:1	1200:1
Aspect Ratio	16:9	16:9	16:9
Viewing Angle(H/V)	178° /178°	178° /178°	178° /178°
Response Time	8ms	14ms	14ms
Interface	HDMI(2), DP(1), two windows PIP/PBP	HDMI(1), DP(1)	HDMI 2.0(2), DP1.4(1), two windows PIP/PBP
Audio In/Out	~/Speakers : 6Ω 2W x 2	~/Speakers : 6Ω 2W x 2	-/-
Built-in Speakers	Yes	Yes	Yes
VESA Mount(mm)	200x200	100x100	100*100
Power	AC 100 ~ 240V(50/60Hz)	AC 100 ~ 240V(50/60Hz)	100V~240V AC
Stand	-	Yes	Yes
Tempered Glass Screen	-	-	-
Additional Features	-	-	-



SMT-3215

32" FHD Monitor



SMT-2710

27" FHD Monitor



SMT-2431

24" FHD Monitor



SMT-2212

22" FHD Monitor

Screen Size	31.5"	27"	24"	22"
Max. Resolution	1920*1080, 60Hz (FHD)	1920 x 1080, 60Hz (FHD)	1920 x 1080	1920 x 1080
Brightness	300cd/m²	250 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio	3000:1	4000:1	4000:1	3000 : 1
Aspect Ratio	16:9	16:9	16:9	16:9
Viewing Angle(H/V)	178° /178°	178° /178°	178° /178°	178° /178°
Response Time	20ms	6.5ms	14ms	6.5ms
Interface	VGA(1), HDMI 1.4(1), DP 1.2(1)	VGA(1), HDMI 1.4(1), DP 1.2(1)	HDMI (1), VGA (1)	HDMI(1), VGA(1)
Audio In/Out	1/1	1/1	-/-	-/-
Built-in Speakers	Yes	Yes	-	-
VESA Mount(mm)	100*100	100*100	100*100	100*100
Power	100V~240V AC	100V~240V AC	100V ~ 240V AC	DC 12V 5A
Stand	Yes	Yes	Yes	Yes
Tempered Glass Screen	-	-	-	-
Additional Features	-	-	-	-

MEMO

Controller



SPC-2001
PTZ / DVR System Controller

Features	• Control up to 255 PTZ Cameras / DVRs • Built-in 3 Axis Twist Zoom Joystick • Built-in Jog Shuttle • 16 x 2 Character LCD Display • RS-485 and RS-422 Interface
----------	--

Lens

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

MEMO

MEMO

HEAD OFFICE

6, Pangyo-ro 319beon-gil, Bundang-gu, Seongnam-si,
Gyeonggi-do, 13488
For more information, please visit our website hanwhavision.com

Global Networks

Hanwha Vision America
Hanwha Vision Europe
Hanwha Vision MEA FZE
Hanwha Vision Oceania
Hanwha Vision Singapore Branch
Hanwha Vision Hanoi / Ho Chi Minh Office

www.HanwhaVision.com/en

Scan this
QR code to find
our official partners.



© 2026 Hanwha Vision Co., Ltd. All rights reserved.

DESIGN AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE
Under no circumstances, this document shall be reproduced, distributed or changed,
partially or wholly, without formal authorization of Hanwha Vision Co., Ltd.
Hanwha Vision is formerly known as Hanwha Techwin.

REVISED 03-2026(S.H.)