

OLIO 2024 H2 PRODU
H2 **PRODUCT** PORTFO
RODUCT **PORTFOLIO**



Hanwha Group

Hanwha embraces bold challenges.

Founded in 1952, Hanwha continues to grow by anticipating and responding to changing business environments with a balanced business portfolio that includes aerospace, energy, finance and retail. As of 2022, we are the seventh-largest business enterprise in South Korea and a Fortune Global 500 company. Hanwha has become a global leader in a number of industries due to its culture of innovation, focused on breakthrough technologies, and sound financial structures.

Sales
2022

65.3 USD
Billions

Years of History
Founded in 1952

71

Domestic affiliates
As of end of June 2022

91

Business Enterprise
in South Korea

Total assets, as of end of 2022

TOP 7

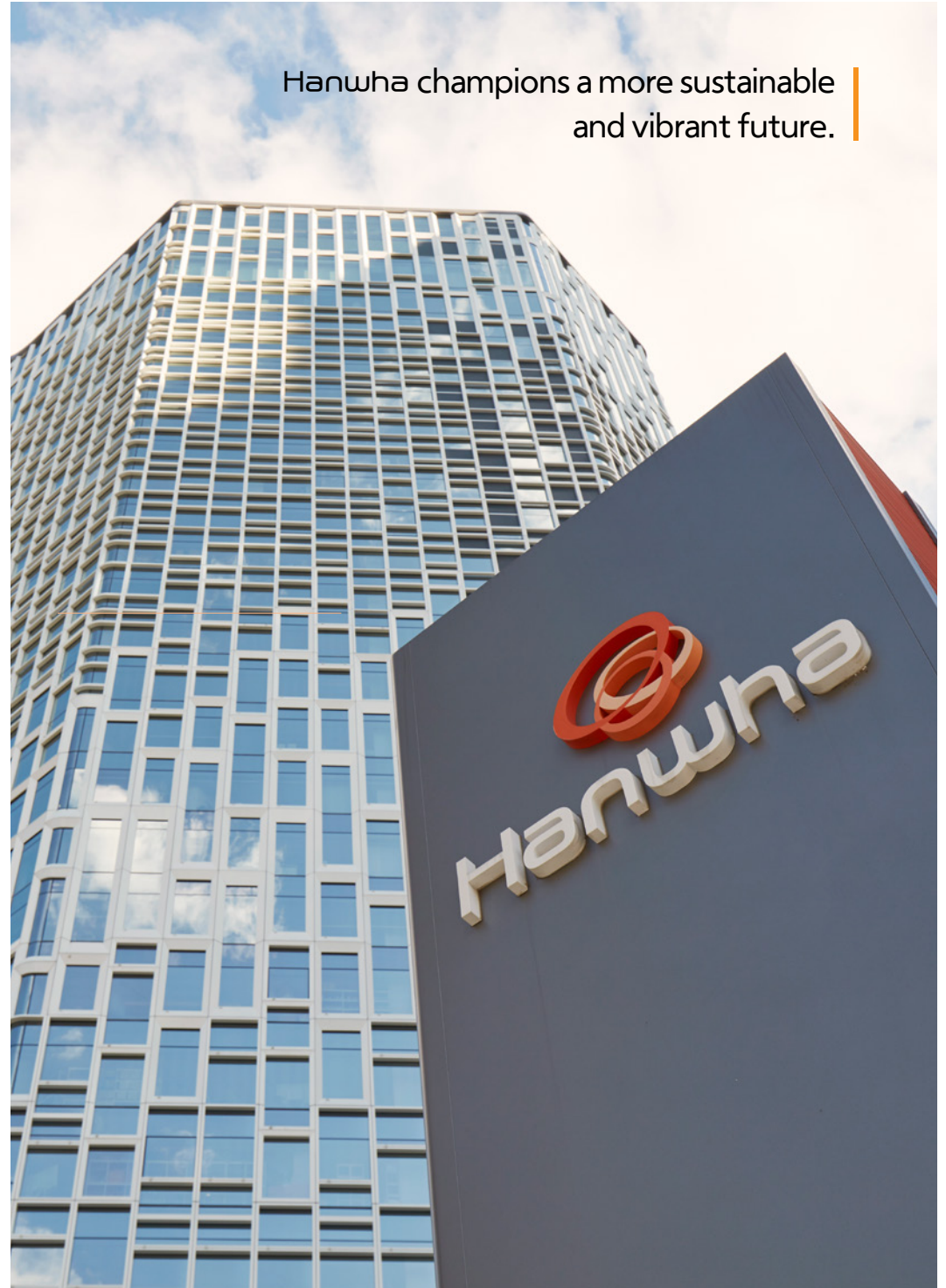
Ranking on Fortune
Global 500 in 2023

296

Global Networks
As of end of 2022

710

Hanwha champions a more sustainable
and vibrant future.



History

- 2023.03 – Changed name to 'Hanwha Vision'
Announced focus on becoming a vision solution provider
- 2022 – Launched IP audio system
- 2021 – Launched the X series AI cameras
– Launched AI NVR and AI integrated solution
– Developed AI-based infectious disease response solutions
- 2020 – 30th anniversary of the video security business
– Launched the P series AI cameras
– Launched Wisenet 7 SoC, a camera series with
Wisenet 7 SoC acquired UL CAP (UL Cybersecurity Assurance Program)
- 2019 – UK Government official cybersecurity certification
– Launched the world's first 55x IR PTZ camera
- 2018 – Established Hanwha Techwin Vietnam manufacturing corporation
- 2017 – Wisenet 5 SoC and X camera series launched
– Acquired CES, a UK Government cybersecurity certification
- 2016 – Establishment of Hanwha Techwin Middle East FZE
- 2015 – Launched Hanwha Techwin
- 2013 – Wisenet 3 SoC and camera series with Wisenet 3
– SoC are launched
- 2012 – Launched the world's first 37x IR PTZ camera
- 2009 – Establishment of Hanwha Techwin
Tianjin and Shanghai
- 2008 – Launched the world's first 37x PTZ camera
- 2005 – Developed advanced intruder automatic location tracking system
- 2004 – Developed Winner 3 Analog ISP chip
- 2001 – Establishment of Hanwha Techwin Europe
- 1997 – Launched the world's best ultra-low illumination video surveillance camera
- 1993 – Developed Korea's first Auto Iris lens for CCTV
- 1990 – Started video surveillance business, establishment of Hanwha Techwin America

Hanwha Vision

Your vision partner.

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

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

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

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





CORE COMPETENCIES

Strengthening our competitiveness.

Our core competitiveness is based on industry-leading optical and image processing technology, AI-powered analysis, and trusted cybersecurity.



Vision technology

Hanwha Vision provides high-quality video and vision solutions through world-class optical and image processing technology.



AI-based intelligent analysis

Hanwha Vision offers AI-powered solutions with intelligent analytics algorithms that enable our customers to efficiently analyse data and make better decisions.



Cybersecurity

With cybersecurity always at the top of its priority list, Hanwha Vision is committed to designing, developing and manufacturing products and solutions which are cyber-secure, keep users' confidential information safe and comply with international data protection regulations.

R&D POWER

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

In 2022 **Hanwha Vision** established an Innovation Centre in the US, with the remit of developing key technologies of the future, such as AI and cloud.

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

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



American Innovation Centre

Headquarters R&D Centre
(Pangyo, Korea)

AI Lab

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

HIGH-TECH POWERED IN VIETNAM

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



END-TO-END CYBERSECURITY

Hanwha Vision offers best-in-class cybersecurity with secure boot/ OS/storage, a signed firmware/open platform app, secure JTAG and more. Hanwha Vision established its own device certificate issuing system to embed certificates into the product in development as well as manufacturing.



- Hanwha Vision Private Device Certification Root CA
- UL CAP, TPM 2.0 (FIPS 140-2), NIS2
- Secure Boot, Secure Storage, Secure OS
- Secure Open Platform
- S-CERT : Security Computer Emergency Response Team
Please contact S-CERT by e-mail (secure.cctv@hanwha.com)

※ Please ask your local representative for UL CAP, TPM 2.0 applied products

PROUDLY
KOREAN

Hanwha Vision



Cybersecurity you can trust

NDAA COMPLIANT, NIS2 & CRA READY



NIS2/CRA



hanwhavision.eu



AI based object detection & classification

Q series AI camera

Pixel based motion detection

Non AI camera

Q series AI Camera

The popular Q series now has AI

Increased accuracy of video analytics through people and vehicle detection.

- AI based object detection (Person, Vehicle)
- False alarm reduction
- Assist forensic search
- WiseNRII, SSNRV, WiseStreamIII

Q series AI

QNV-C9083R/C8083R,
QNO-C9083R/C8083R,
QNV-C8011R/C8012/C9011R



X series AI camera

X Plus · X Core lineup

Powerful AI for the X series

Object detection

Edge-based business intelligence

Improved image quality

Next-level cybersecurity

User convenience

Reinforced durability

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

X PLUS

XNO-9083R/8083R/6083R

XNV-9083R/8093R/8083R/6083R

XND-9083RV/8093RV/8083RV/6083RV

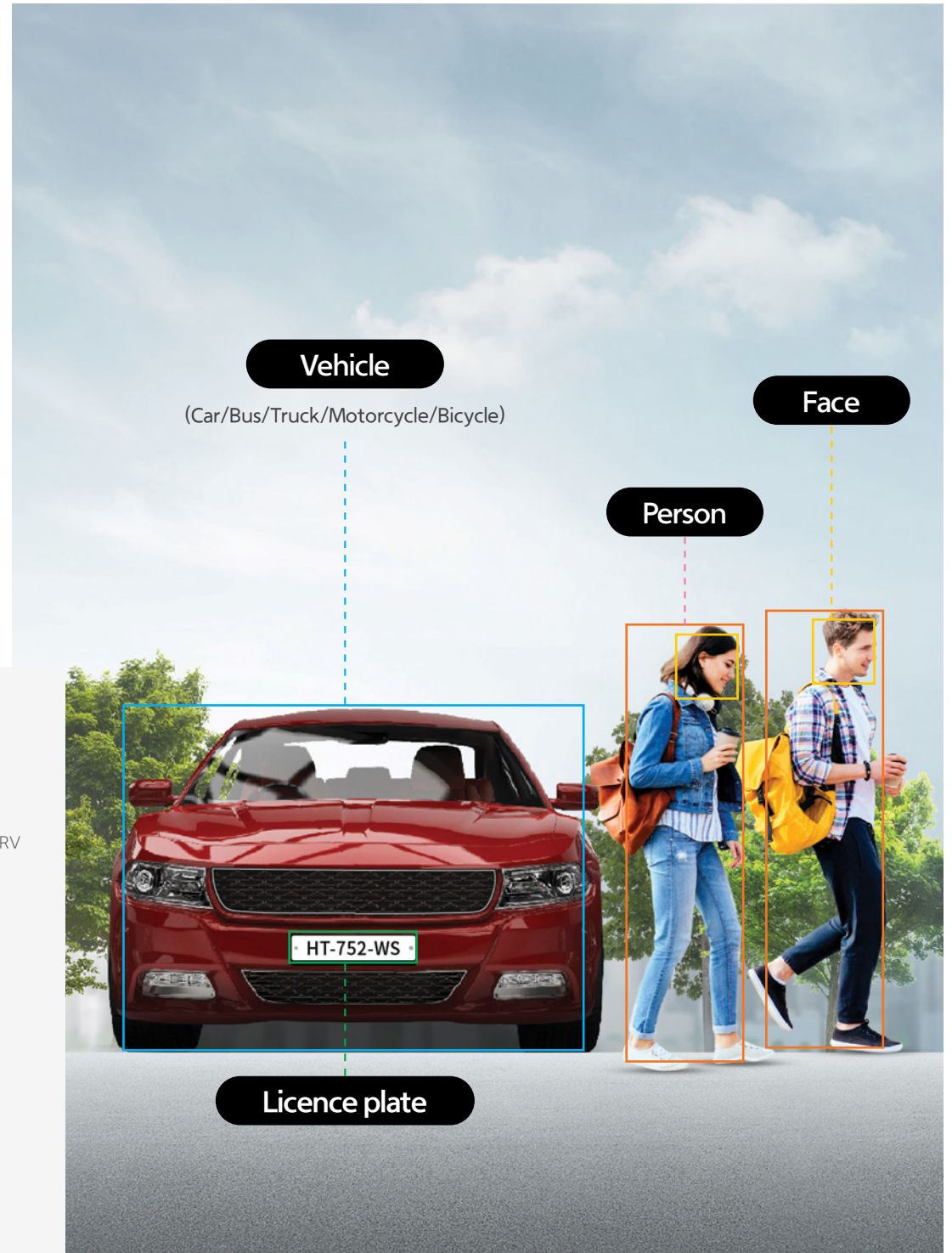
XNB-9003/8003/6003

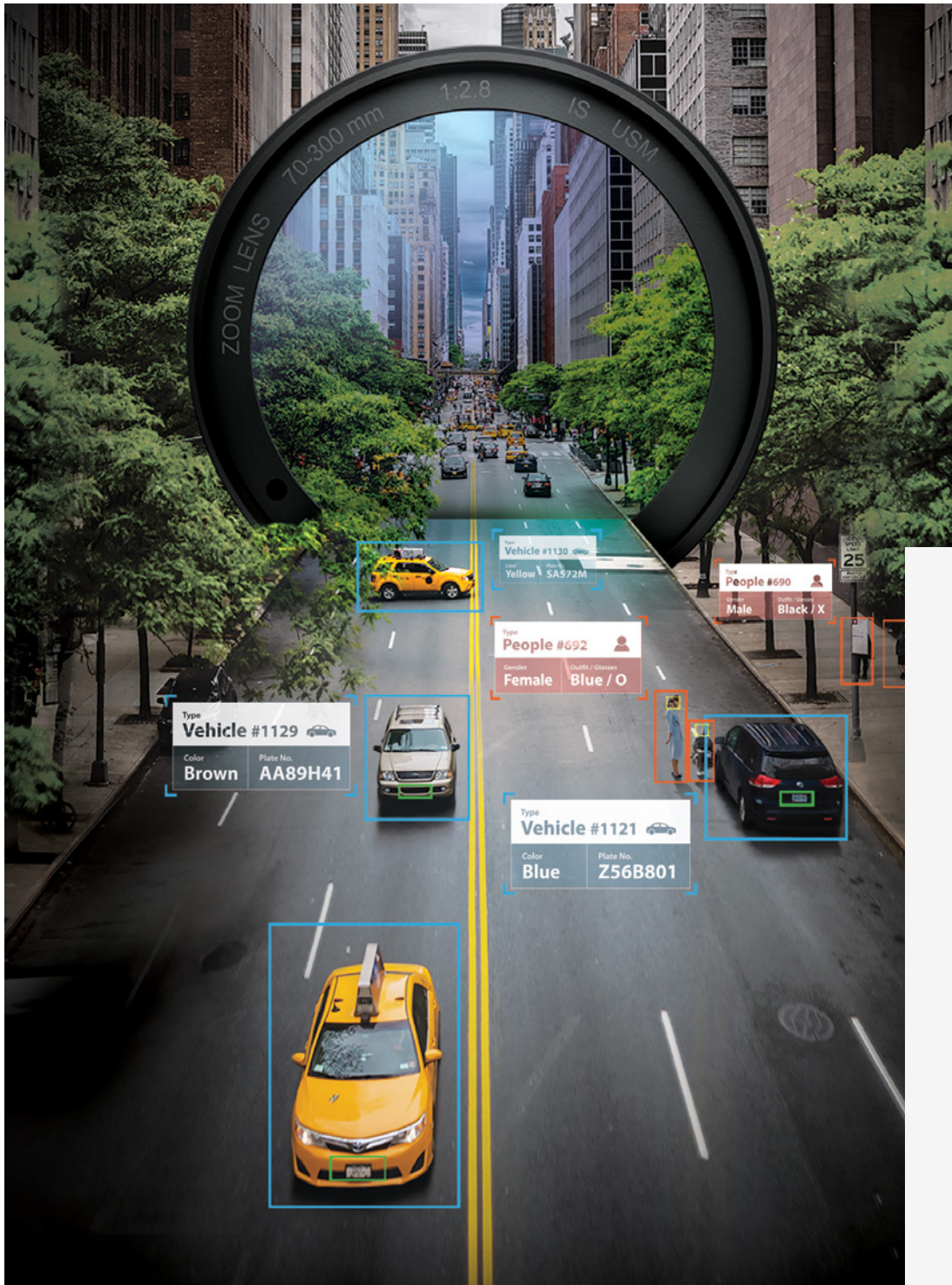
X Core

XNO-C9083R/C8083R/C7083R/C6083R

XNV-C9083R/C8083R/C7083R/C6083R

XND-C9083RV/C8083RV/C7083RV/C6083RV





P series AI Camera & NVR

Premium AI for unparalleled accuracy

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

Equipped with a powerful artificial intelligence engine that detects and classifies people and vehicles in real time, P series AI cameras are designed to accurately capture the unique attributes of objects such as faces and licence plates, whilst reducing false alarms. This enables operators to quickly and efficiently search for specific events or objects with defined attributes.



P series AI **4K 2MP**

PNO-A9081R/A6081R, PNV-A9081R/A6081R,
PND-A9081RV/A6081RV
PNB-A9001/A9001LP/A6001

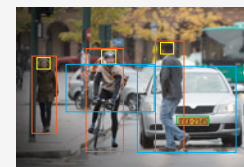


Network Video Recorders

PRN-6400DB4/6400B4,
PRN-3200B4/3200B2/1600B2

P series AI Cameras

Detect and classify objects real-time



VMS Plug-in for improved AI search

* Person, face, vehicle, licence plate

AI Search

Quickly search based on attributes



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

X series AI PTZ Plus XNP-C6403R

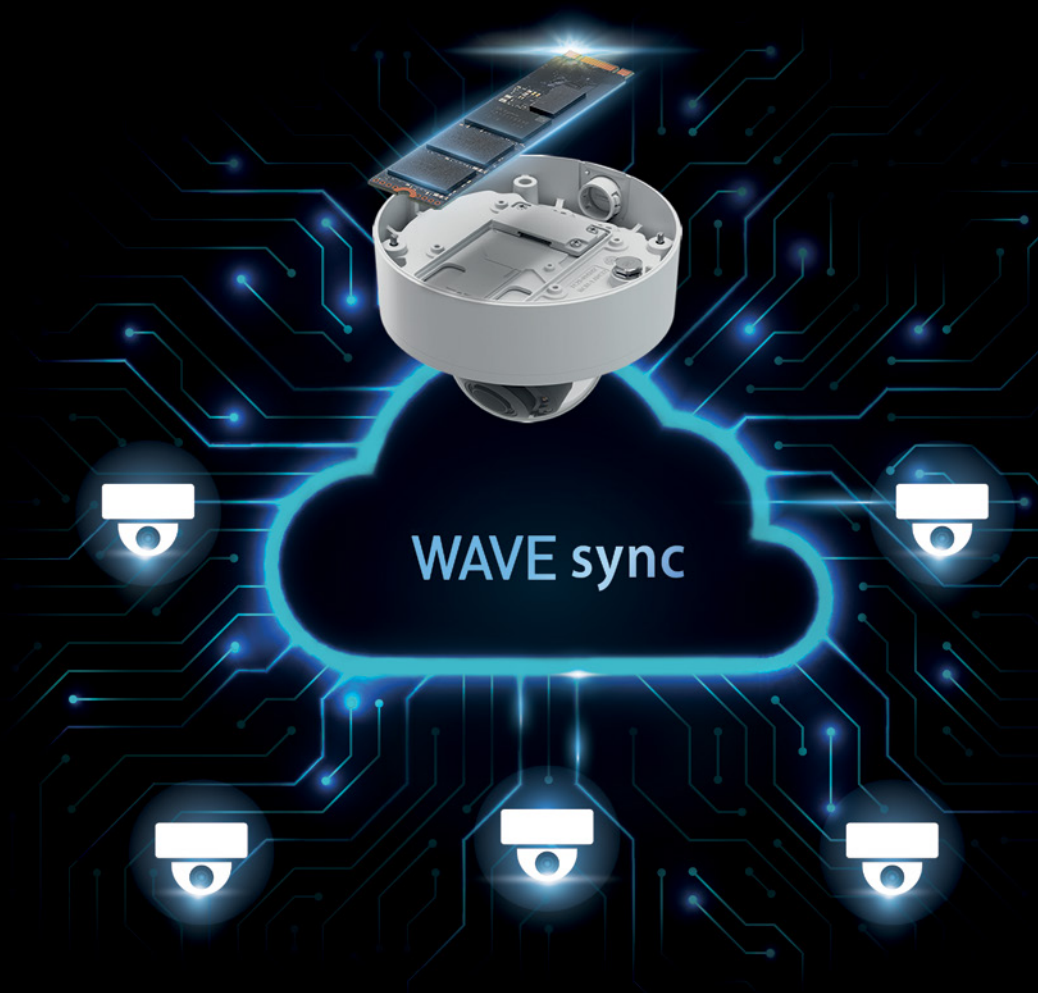


AI-based object classification and improved auto-tracking function

- Enhanced operational efficiency with AI
- Upgraded object auto tracking performance
- AI based enhanced image quality
 - WiseNR II, Prefer shutter, WiseStream III
- Image quality for night vision (IR 200m)
- Easy installation



SolidEDGE: Serverless VMS On the Edge



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

AWARD WINNING



40x PTRZ

NO BLIND SPOTS

5 Channel AI and IR PTRZ multi-directional camera

PNM-C34404RQPZ

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

We supply **peace of mind.**

- Expertly engineered and manufactured in-house
- Excellent cost/performance ratio
- Trusted cybersecurity
- Stability of supply



PROUDLY
KOREAN

 Hanwha Vision





GLOBAL NETWORK

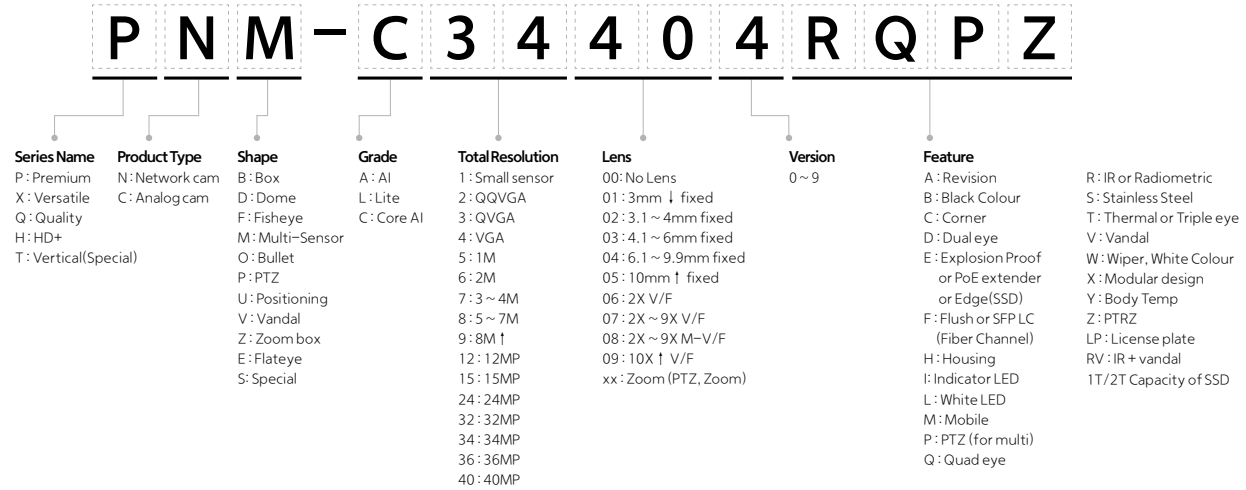
Hanwha Vision works with customers and partners around the world for global R&D, manufacturing and sales partnerships.

- Hanwha Vision R&D Centre (HQ, South Korea)
- Hubs around the world

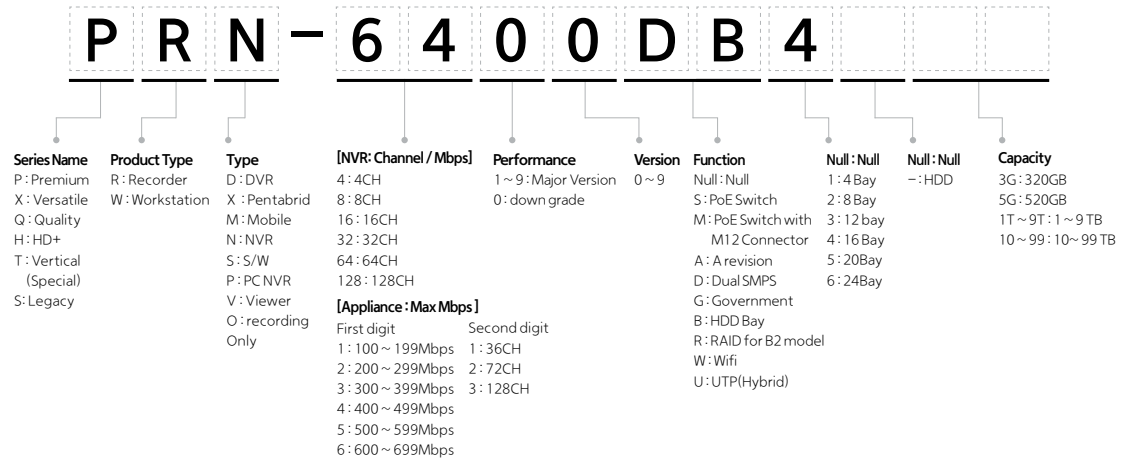


PRODUCT NAMING RULE

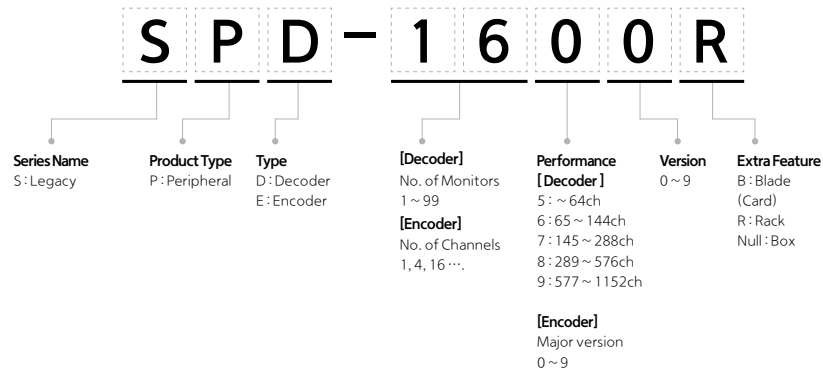
Camera



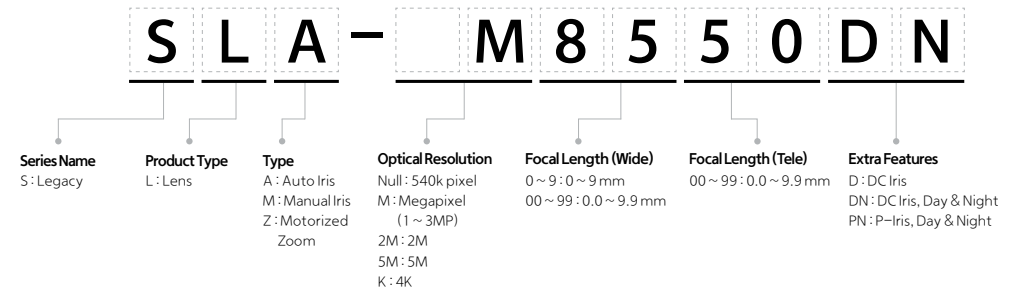
Recorder



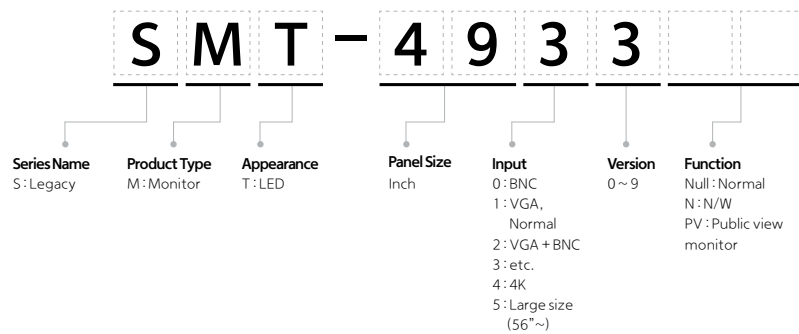
Decoder/Encoder



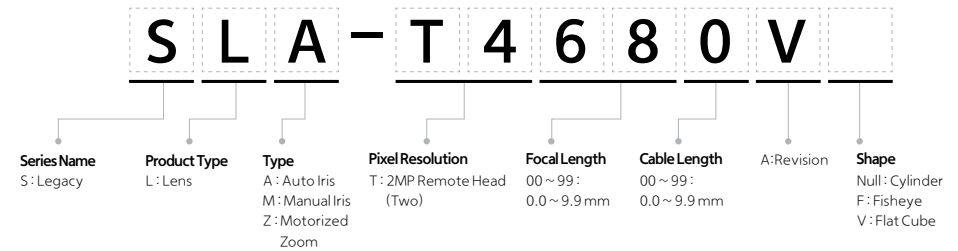
Lens : CS Mount



Monitor



Lens : Remote Head



NETWORK

Camera

AI Cameras

X series

P series

Q series

T series

NVR

Encoder / Decoder

Smart Network Interface (SNI)

VMS

IP Audio System

ANALOG

Camera

DVR

PERIPHERAL

Monitor

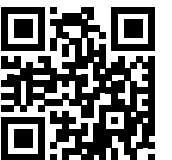
Controller

Lens

INSTALLATION SOLUTION

Toolbox Plus

LINE UP 2024 H2 LINE
E UP 2024 H2 **LINE UP**





| | | | | | |
|-----------------------------------|--|---|---|---|---|
| Imaging Device | 1/1.8" progressive 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) | Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(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), 0Lux(IR LED on) | Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.03Lux(F1.2, 1/30sec, 30IRE) BW: 0.003Lux(F1.2, 1/30sec, 30IRE) |
| Video Out | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | - | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation |
| Focal Length (Zoom Ratio) | 4.4~9.3mm(2.1x) motorized varifocal | | | | - |
| Angular Field of View | H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele) | H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele) | H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele) | H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele) | - |
| Pan / Tilt / Rotate Range | 0°~360° / 0°~90° / 0°~360° | 0°~360° / 0°~85° / 0°~355° | Remote adjustment(Max. 200cycles) 0°~350° / 0°~85° / 0°~340° | 0°~360° / 0°~85° / 0°~355° | - |
| IR Viewable Length | WiseIR 50m (164.04ft) | WiseIR 50m (164.04ft) | 15m (49.21ft) 30m (98.43ft) based on scene | WiseIR 50m (164.04ft) | - |
| Day & Night | Auto (ICR) | | | | |
| Wide Dynamic Range | extremeWDR (120dB) | | | | |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | | | |
| Digital Image Stabilization | Support (built-in gyro sensor) | | | | |
| Analytics | <p>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)</p> | | | | |
| Business Intelligence | Based on AI engine: People/Vehicle counting, Queue management, Heatmap | Based on AI engine: People/Vehicle counting, Queue management, Heatmap | Based on AI engine: People/Vehicle counting | Based on AI engine: People/Vehicle counting, Queue management, Heatmap | Based on AI engine: People/Vehicle counting, Queue management, Heatmap |
| Alarm I/O | 2 configurable I/O ports, DC 12V output (Max. 50mA) | 2 configurable I/O ports, DC 12V output (Max. 50mA) | - | 2 configurable I/O ports, DC 12V output (Max. 50mA) | 2 configurable I/O ports |
| Audio I/O | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out | - | Selectable (mic in/line in/built-in mic) / Line out | Selectable (mic in/line in/built-in mic) / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | | |
| WiseStream | Manual(Sea area), WiseStream III (Based on AI engine) | | | | |
| Streaming | Up to 10 profiles, 3 virtual channel support | | | | |
| Edge Storage | micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2) | | | | |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform | | | | |
| Operating Temperature / Humidity | -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 | -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 | -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 | -10°C~+55°C(-14°F~+131°F) / 0~95% RH(non-condensing) |
| Certification | IP66, IP67, NEMA4X, IK10 | IP66, IP67, IP6K9K, NEMA4X, IK10+ | IP66, IP67, IP6K9K, NEMA4X, IK10+ | IP52, IK10 | - |
| Power Consumption | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover | PoE+: Max 22.5W, typical 12.1W | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover | PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W |
| Product Dimensions / Weight | ø93.4x298.4mm(ø3.68x11.75"), 2200g(4.85 lb) | ø180x125mm(ø7.09x4.92"), 1900g(4.19 lb) | ø180x135mm(ø7.09x5.31"), 2000g(4.41 lb) | ø160x125mm(ø6.30x4.92"), 1600g(3.53 lb) | 81(W)x67(H)x165(D)mm(3.19x2.64x6.48"), 880g(1.94 lb) |



X Plus
XNV-8093R
6MP AI IR Vandal Dome Camera



X Plus
XND-8093RV
6MP AI IR Dome Camera



X Plus
XNO-8083R
6MP AI IR Bullet Camera



X Plus
XNV-8083R
6MP AI IR Vandal Dome Camera



X Plus
XNV-8083RZ
6MP AI IR Vandal Dome Camera

| | | | | | |
|-----------------------------------|--|---|---|--|--|
| Imaging Device | 1/1.8" progressive 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: 0.06Lux(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) | Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(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), 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) | 10.9~29mm(2.7x) motorized varifocal | 10.9~29mm(2.7x) motorized varifocal | 4.4~9.3mm(2.1x) motorized varifocal | 4.4~9.3mm(2.1x) motorized varifocal | 4.4~9.3mm(2.1x) motorized varifocal |
| Angular Field of View | H: 42° (Wide) ~ 15° (Tele) V: 22.8° (Wide) ~ 8.4° (Tele) D: 48.7° (Wide) ~ 17.1° (Tele) | H: 42° (Wide) ~ 15° (Tele) V: 22.8° (Wide) ~ 8.4° (Tele) D: 48.7° (Wide) ~ 17.1° (Tele) | H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele) | H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele) | H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele) |
| Pan / Tilt / Rotate Range | 0°~360° / 0°~85° / 0°~355° | 0°~360° / 0°~85° / 0°~355° | 0°~360° / 0°~90° / 0°~360° | 0°~360° / 0°~85° / 0°~355° | Remote adjustment(Max. 200cycles) 0°~350° / 0°~85° / 0°~340° |
| IR Viewable Length | WiseIR 70m (229.66ft) | WiseIR 70m (229.66ft) | WiseIR 50m (164.04ft) | WiseIR 50m (164.04ft) | 15m (49.21ft), 30m (98.43ft) based on scene |
| Day & Night | Auto (ICR) | | | | |
| Wide Dynamic Range | extremeWDR (120dB) | | | | |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | | | |
| Digital Image Stabilization | Support (built-in gyro sensor) | | | | |
| Analytics | <p>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)</p> | | | | |
| Business Intelligence | Based on AI engine: People/Vehicle counting, Queue management, Heatmap | | | | Based on AI engine: People/Vehicle counting |
| 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 | Selectable (mic in/line in) / Line out | - |
| Video Compression | H.265 / H.264, MJPEG | | | | |
| WiseStream | Manual(5ea area), WiseStream III (Based on AI engine) | | | | |
| Streaming | Up to 10 profiles, 3 virtual channel support | | | | |
| Edge Storage | micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2) | | | | |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) 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 | -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 | -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 | IP66, IP67, IP6K9K, NEMA4X, IK 10+ | IP52, IK 10 | IP66, IP67, NEMA4X, IK 10 | IP66, IP67, IP6K9K, NEMA4X, IK 10+ | IP66, IP67, IP6K9K, NEMA4X, IK 10+ |
| Power Consumption | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover | PoE+: Max 22.5W, typical 12.1W |
| Product Dimensions / Weight | ø 180x125mm(ø 7.09x4.92"), 1900g(4.19 lb) | ø 160x125mm(ø 6.30x4.92"), 1600g(3.53 lb) | ø 93.4x298.4mm(ø 3.68x11.75"), 2200g(4.85 lb) | ø 180x125mm(ø 7.09x4.92"), 1900g(4.19 lb) | ø 180x135mm(ø 7.09x5.31"), 2000g(4.41 lb) |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION

X Plus



XNV-8083Z
6MP AI Vandal Dome Camera

X Plus



XND-8083RV
6MP AI IR Dome Camera

X Plus



XNB-8003
6MP AI Box Camera

X Plus



XNO-6123R
2MP AI IR Bullet Camera

X Plus



XNO-6083R
2MP AI IR Bullet Camera

| | | | | | |
|-----------------------------------|---|--|--|---|--|
| Imaging Device | 1/1.8" progressive CMOS | 1/1.8" progressive CMOS | 1/1.8" progressive CMOS | 1/2.8" progressive CMOS | 1/2.8" progressive CMOS |
| Resolution / Max. Frame Rate | 6MP/30fps | 6MP/30fps | 6MP/30fps | 2MP / 120fps | 2MP/120fps |
| Min. Illumination | Colour: 0.03Lux(F1.3, 1/30sec, 30IRE) BW: 0.003Lux(F1.3, 1/30sec, 30IRE) | Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.03Lux(F1.2, 1/30sec, 30IRE) BW: 0.003Lux(F1.2, 1/30sec, 30IRE) | Colour: 0.03Lux(F1.6, 1/30sec, 30IRE) BW: 0.003Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps |
| Video Out | CVBS: 1.0 Vp-p / 75 Ω 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 | 4.4~9.3mm(2.1x) motorized varifocal | - | 5.2~62.4mm(12x) zoom (digital 32x, total 384x zoom) | 2.8~12mm(4.3x) motorized varifocal |
| Angular Field of View | H: 113°(Wide)~47°(Tele) V: 58°(Wide)~26°(Tele) D: 138°(Wide)~54°(Tele) | H: 112.1°(Wide)~47.5°(Tele) V: 58°(Wide)~26.6°(Tele) D: 137.5°(Wide)~54.6°(Tele) | - | H: 55°(Wide)~5°(Tele) V: 35°(Wide)~3°(Tele) D: 62°(Wide)~6°(Tele) | H: 119.5°(Wide)~27.9°(Tele) V: 62.8°(Wide)~15.7°(Tele) D: 142.1°(Wide)~32°(Tele) |
| Pan / Tilt / Rotate | 0°~350° / 0°~85° / 0°~340° | 0°~360°~45°~85° / 0°~355° | - | - | - |
| IR Viewable Length | - | WiselR 50m (164.04ft) | - | WiselR 90m (295.28ft) | WiselR 50m (164.04ft) |
| Day & Night | Auto(ICR) | | | | |
| Wide Dynamic Range | extremeWDR (120dB) | extremeWDR (120dB) | extremeWDR (120dB) | extremeWDR (150dB) | extremeWDR (150dB) |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | | | |
| Digital Image Stabilization | Support(built-in gyro sensor) | | | | |
| Analytics | <p>Classified object type: Person/Face/ Vehicle(Type: car/bus/truck/motorcycle/ bicycle)/License plate</p> <p>Attributes: Vehicle(Type: car/bus/truck/ motorcycle/bicycle)</p> <p>Support DetectionShot</p> <p>Analytics events based on AI engine</p> <ul style="list-style-type: none"> - Object detection, Virtual line(Crossing/ Direction), Virtual area(Loitering/Intrusion/ Enter/Exit), Motion detection <p>Analytics events</p> <ul style="list-style-type: none"> - Defocus detection, Tampering, Fog detection, Virtual area(Appear/Disappear) * Audio detection, Sound classification (with NWI/O box SPM-4210) | <p>Classified object type: Person/Face/Vehicle/License plate</p> <p>Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle)</p> <p>Support DetectionShot</p> <p>Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection</p> <p>Analytics events: Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> | <p>Classified object type: Person/Face/Vehicle/License plate</p> <p>Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle)</p> <p>Support DetectionShot</p> <p>Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection</p> <p>Analytics events: Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> | - | <p>Classified object type: Person/Face/Vehicle/License plate</p> <p>Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle)</p> <p>Support DetectionShot</p> <p>Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit), Motion Detection</p> <p>Analytics events: Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |
| Business Intelligence | Based on AI engine: People/Vehicle counting | Based on AI engine: People/Vehicle counting, Queue management, Heatmap | Based on AI engine: People/Vehicle counting, Queue management, Heatmap | - | Based on AI engine: People/Vehicle counting, Queue management, Heatmap |
| Alarm I/O | - | 2 configurable I/O ports, DC 12V output (Max. 50mA) | 2 configurable I/O ports | 2 configurable I/O ports, DC 12V output (Max. 50mA) | 2 configurable I/O ports, DC 12V output (Max. 50mA) |
| Audio I/O | - | Selectable (mic in/line in/built-in mic) / Line out | Selectable (mic in/line in/built-in mic) / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out |
| Video Compression | H.265/H.264, MJPEG | | | | |
| WiseStream | Manual(5ea area), WiseStream III (Based on AI engine) | | | | |
| Streaming | Up to 10 profiles, 3 virtual channel support | Up to 10 profiles, 3 virtual channel support | Up to 10 profiles, 3 virtual channel support | Up to 10 profiles | Up to 10 profiles, 3 virtual channel support |
| Edge Storage | Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2) | | | | |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API), Hanuwa 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 | -10°C~+55°C(-14°F~+131°F) / 0~95% RH(non-condensing) | -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~+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, NEMA4X, IK 10+ | IP52, IK 10 | - | IP66, IP67, IK 10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9) | IP66, IP67, NEMA4X, IK 10 |
| Power Consumption | PoE+: Max 17.0W, typical 12.1W | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover | PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W | PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover | PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover |
| Product Dimensions / Weight | ø 180x135mm(ø 7.09x5.31"), 2000g(4.41 lb) | ø 160x125mm(ø 6.30x4.92"), 1600g(3.53 lb) | 81(W)x67(H)x165(D)mm(3.19x2.64x6.48"), 880g(1.94 lb) | ø 93.4x298.4mm(ø 3.68x11.75"), 2300g(5.07 lb) | ø 93.4x298.4mm(ø 3.68x11.75"), 2200g(4.85 lb) |

X Plus



XNV-6123R
2MP AI IR Vandal Dome Camera

X Plus



XNV-6083RZ
2MP AI IR Vandal Dome Camera

X Plus



XNV-6083R
2MP AI IR Vandal Dome Camera

X Plus



XNV-6083Z
2MP AI Vandal Dome Camera

X Plus



XND-6083RV
2MP AI IR Dome Camera

| | | | | | |
|-----------------------------------|--|---|--|---|--|
| Imaging Device | 1/2.8" progressive CMOS | | | | |
| Resolution / Max. Frame Rate | 2MP / 120fps | | | | |
| Min. Illumination | Colour: 0.03Lux(F1.6, 1/30sec, 30IRE) BW: 0.003Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | Colour: 0.03Lux(F1.3, 1/30sec, 30IRE) BW: 0.003Lux(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), 0Lux(IR LED on), 30/25fps | Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 30/25fps | Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps |
| Video Out | CVBS: 1.0Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | - | CVBS: 1.0Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | - | CVBS: 1.0Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation |
| Focal Length (Zoom Ratio) | 5.2~62.4mm(12x) zoom (digital 32x, total 384x zoom) | 4.4~9.3mm(2.1x) motorized varifocal | 2.8~12mm(4.3x) motorized varifocal | 2.8~12mm(4.3x) motorized varifocal | 2.8~12mm(4.3x) motorized varifocal |
| Angular Field of View | H: 55° (Wide) ~ 5° (Tele) V: 33° (Wide) ~ 3° (Tele) D: 62° (Wide) ~ 6° (Tele) | H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele) | H: 120° (Wide) ~ 27° (Tele) V: 63° (Wide) ~ 15° (Tele) D: 143° (Wide) ~ 32° (Tele) | H: 120° (Wide) ~ 27° (Tele) V: 63° (Wide) ~ 15° (Tele) D: 143° (Wide) ~ 32° (Tele) | H: 120° (Wide) ~ 27° (Tele) V: 63° (Wide) ~ 15° (Tele) D: 143° (Wide) ~ 32° (Tele) |
| Pan / Tilt / Rotate | 0°~360° / -45°~80° / 0°~355° | 0°~350° / 0°~85° / 0°~340° | 0°~360° / -45°~80° / 0°~355° | 0°~350° / 0°~85° / 0°~340° | 0°~360° / -45°~85° / 0°~355° |
| IR Viewable Length | WiseIR 90m (295.28ft) | 15m(42.91ft) | WiseIR 50m (164.04ft) | - | WiseIR 50m (164.04ft) |
| Day & Night | Auto (ICR) | | | | |
| Wide Dynamic Range | extremeWDR(150dB) | | | | |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V |
| Digital Image Stabilization | Support (built-in gyro sensor) | Support | Support (built-in gyro sensor) | Support | Support (built-in gyro sensor) |
| Analytics | <p>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)</p> | | | | |
| Business Intelligence | - | Based on AI engine: People/Vehicle counting | Based on AI engine: People/Vehicle counting, Queue management, Heatmap | 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) | - | 2 configurable I/O ports, DC 12V output (Max. 50mA) | - | 2 configurable I/O ports, DC 12V output (Max. 50mA) |
| Audio I/O | Selectable (mic in/line in) / Line out | - | Selectable (mic in/line in) / Line out | - | Selectable (mic in/line in/built-in mic) / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | | |
| WiseStream | Manual (5ea area), WiseStream III (Based on AI engine) | | | | |
| Streaming | Up to 10 profiles | Up to 10 profiles | Up to 10 profiles, 3 virtual channel support | Up to 10 profiles | Up to 10 profiles, 3 virtual channel support |
| Edge Storage | micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2) | | | | |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform | | | | |
| Operating Temperature / Humidity | -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~+55°C(-58°F~+131°F) * Start up should be done at above -30°C 0~100%RH(condensing) Humidity control with AIR vent | -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 | -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 |
| Certification | IP66, IP67, IP6K9K, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9), IK 10+ | IP66, IP67, IP6K9K, NEMA4X, IK 10+ | IP66, IP67, IP6K9K, NEMA4X, IK 10+ | IP66, IP67, IP6K9K, NEMA4X, IK 10+ | IP52, IK 10 |
| Power Consumption | PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover | PoE+: Max 22.5W, typical 11.0W | PoE+: Max 22.5W, typical 11.0W | PoE+: Max 17.0W, typical 11.0W | PoE+: Max 17.0W, typical 11.0W |
| Product Dimensions / Weight | ø 180x138mm(ø 7.09x5.43"), 2130g(4.70 lb) | ø 180x135mm(ø 7.09x5.31"), 2000g(4.41 lb) | ø 180x125mm(ø 7.09x4.92"), 1900g(4.19 lb) | ø 180x135mm(ø 7.09x5.31"), 2000g(4.41 lb) | ø 160x125mm(ø 6.30x4.92"), 1600g(3.53 lb) |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION

X Plus



XNB-6003
2MP AI Box Camera

X Core



XNO-C9083R
8MP AI IR Bullet Camera

X Core



XNV-C9083R
8MP AI IR Vandal Dome Camera

X Core



XND-C9083RV
8MP AI IR Dome Camera

X Core



XNO-C8083R
6MP AI IR Bullet Camera

| | | | | | |
|-----------------------------------|---|---|---|---|---|
| Imaging Device | 1/2.8" progressive CMOS | 1/1.8" progressive CMOS | 1/1.8" progressive CMOS | 1/1.8" progressive CMOS | 1/1.8" progressive CMOS |
| Resolution / Max. Frame Rate | 2MP / 120fps | 8MP / 30fps | 8MP / 30fps | 8MP / 30fps | 6MP / 30fps |
| Min. Illumination | Colour: 0.007Lux(F1.2, 1/30sec, 30IRE) BW: 0.0007Lux(F1.2, 1/30sec, 30IRE), 30/25fps | Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) 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: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on) |
| Video Out | CVBS: 1.0Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation |
| 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 | 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) | H: 113°(Wide)~47°(Tele) V: 58°(Wide)~26°(Tele) D: 138°(Wide)~54°(Tele) |
| Pan / Tilt / Rotate | - | - | 0° ~ 360° / -45° ~ 75° / 0° ~ 355° | 0° ~ 360° / -45° ~ 75° / 0° ~ 355° | - |
| IR Viewable Length | - | WiseIR 40m (131.23ft) | WiseIR 40m (131.23ft) | WiseIR 40m (131.23ft) | WiseIR 40m (131.23ft) |
| Day & Night | Auto (ICR) | | | | |
| Wide Dynamic Range | extremeWDR (120dB) | | | | |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | | | |
| Digital Image Stabilization | Support (built-in gyro sensor) | | | | |
| Analytics | <p>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)</p> | | | | |
| 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/built-in mic) / Line out | | | | |
| Video Compression | H.265 / H.264, MJPEG | | | | |
| WiseStream | Manual(5ea area), WiseStream III (Based on AI engine) | | | | |
| Streaming | Up to 10 profiles, 3 virtual channel support | | | | |
| Edge Storage | micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2) | | | | |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision OpenPlatform | | | | |
| Operating Temperature / Humidit | -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 | -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 |
| Power Consumption | PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W | PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W | PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W | PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W | PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W |
| Product Dimensions / Weight | 81(W)x67(H)x165(D)mm(3.19x2.64x6.48"), 880g(1.94 lb) | ø 93.4x276.6mm(ø 3.68x10.89"), 1640g(3.62 lb) | ø 160x118mm(ø 6.30x4.65"), 1450g(3.20 lb) | ø 160x118mm(ø 6.30x4.65"), 1350g(2.98 lb) | ø 93.4x276.6mm(ø 3.68x10.89"), 1640g(3.62 lb) |

X Core



XNV-C8083R
6MP AI IR Vandal Dome Camera

X Core



XND-C8083RV
6MP AI Dome Camera

X Core



XNO-C7083R
4MP AI IR Bullet Camera

X Core



XNV-C7083R
4MP AI IR Vandal Dome Camera

X Core



XND-C7083RV
4MP AI IR Dome Camera

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|-----------------------------------|--|---|--|--|---|
| Imaging Device | 1/1.8" progressive CMOS | 1/1.8" progressive CMOS | 1/2.8" progressive CMOS | 1/2.8" progressive CMOS | 1/2.8" progressive CMOS |
| Resolution / Max. Frame Rate | 6MP / 30fps | 6MP / 30fps | 4MP / 60fps | 4MP / 60fps | 4MP / 60fps |
| Min. Illumination | Colour: 0.04Lux(F1.3, 1/30sec, 30IRE) 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 | 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 |
| Video Out | USB: Micro USB Type B, 1280x720 for installation | | | | |
| Focal Length (Zoom Ratio) | 4.4~9.3mm(2.1x) motorized varifocal | 4.4~9.3mm(2.1x) motorized varifocal | 2.8~10mm(3.6x) motorized varifocal | 2.8~10mm(3.6x) motorized varifocal | 2.8~10mm(3.6x) motorized varifocal |
| Angular Field of View | H: 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: 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: 110° (Wide)~30° (Tele) V: 61° (Wide)~17° (Tele) D: 132° (Wide)~35° (Tele) |
| Pan / Tilt / Rotate | 0° ~ 360° / -45° ~ 75° / 0° ~ 355° | 0° ~ 360° / -45° ~ 75° / 0° ~ 355° | - | 0° ~ 360° / -45° ~ 75° / 0° ~ 355° | 0° ~ 360° / -45° ~ 75° / 0° ~ 355° |
| IR Viewable Length | WiseIR 40m (131.23ft) | | | | |
| Day & Night | Auto (ICR) | | | | |
| Wide Dynamic Range | extremeWDR (120dB) | | | | |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | | | |
| Digital Image Stabilization | Support (built-in gyro sensor) | | | | |
| Analytics | <p>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)</p> | | | | |
| 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, MJPEG | | | | |
| WiseStream | Manual(5ea area), WiseStream III (Based on AI engine) | | | | |
| Streaming | Up to 10 profiles, 3 virtual channel support | | | | |
| Edge Storage | micro SD/SDHC/SDXC 1slot 512GB | | | | |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) 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 | -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 | IP66, IP67, NEMA4X, IK10 | IP66, IP67, NEMA4X, IK10 | IP52, IK08 |
| Power Consumption | PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W | PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W | PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W | PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W | PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W |
| Product Dimensions / Weight | ø 160x118mm(ø 6.30x4.65"), 1450g(3.20 lb) | ø 160x118mm(ø 6.30x4.65"), 1350g(2.98 lb) | ø 93.4x276.6mm(ø 3.68x10.89"), 1640g(3.62 lb) | ø 160x118mm(ø 6.30x4.65"), 1450g(3.20 lb) | ø 160x118mm(ø 6.30x4.65"), 1350g(2.98 lb) |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION

X Core



XNO-C6083R
2MP AI IR Bullet Camera

X Core



XNV-C6083R
2MP AI IR Vandal Dome Camera

X Core



XND-C6083RV
2MP AI Dome Camera

X Plus



XNF-9013RV
12MP AI Fisheye Camera

| | | | | | | | | |
|-----------------------------------|--|--|---|--|---|--|--|--|
| Imaging Device | 1/2.8" progressive CMOS | | 1/2.8" progressive CMOS | | 1/2.8" progressive CMOS | | 1/2.3" 12MP CMOS | |
| Resolution / Max. Frame Rate | 2MP / 60fps | | 2MP / 60fps | | 2MP / 60fps | | 3008 x 3008 / 30fps | |
| Min. Illumination | Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | | Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | | Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | | Colour: 0.39 Lux (F2.2, 1/30sec), BW: 0Lux(IR LED on) | |
| Video Out | USB: Micro USB Type B, 1280x720 for installation | | | | | | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P), for Installation USB: Micro USB Type B, 1280x720 for installation | |
| Focal Length (Zoom Ratio) | 2.8~12mm(4.3x) motorized varifocal | | | | | | 1.08mm fixed focal | |
| Angular Field of View | H: 120°(Wide)~27°(Tele) V: 63°(Wide)~15°(Tele) D: 143°(Wide)~32°(Tele) | | H: 120°(Wide)~27°(Tele) V: 63°(Wide)~15°(Tele) D: 143°(Wide)~32°(Tele) | | H: 120°(Wide)~27°(Tele) V: 63°(Wide)~15°(Tele) D: 143°(Wide)~32°(Tele) | | H: 187° / V: 187° / D: 187° | |
| Pan / Tilt / Rotate | - | | 0° ~ 360° / -45° ~ 75° / 0° ~ 355° | | 0° ~ 360° / -45° ~ 75° / 0° ~ 355° | | Lens Rotation | |
| IR Viewable Length | WiseIR 40m (131.23ft) | | WiseIR 40m (131.23ft) | | WiseIR 40m (131.23ft) | | Wise IR, PoE: 8m(26.25ft), PoE+: 13m(42.65ft) | |
| Day & Night | Auto (ICR) | | | | | | | |
| Wide Dynamic Range | extremeWDR (150dB) | | extremeWDR (150dB) | | extremeWDR (150dB) | | extremeWDR (120dB) | |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | | | | | | |
| Digital Image Stabilization | Support (built-in gyro sensor) | | Support (built-in gyro sensor) | | Support (built-in gyro sensor) | | - | |
| Analytics | <p>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)</p> | | | | | | <p>Classified object type: Person/Face/Vehicle/License plate Support DetectionShot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Analytics events: Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> | |
| 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, MJPEG | | | | | | | |
| WiseStream | Manual(Sea area), WiseStream III(Based on AI engine) | | | | | | | |
| Streaming | Up to 10 profiles, 3 virtual channel support | | Up to 10 profiles, 3 virtual channel support | | Up to 10 profiles, 3 virtual channel support | | Up to 10 profiles, 5 virtual channel support | |
| Edge Storage | micro SD/SDHC/SDXC 1slot 512GB | | micro SD/SDHC/SDXC 1slot 512GB | | micro SD/SDHC/SDXC 1slot 512GB | | micro SD/SDHC/SDXC 2slots 1TB (512GBx2) | |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) 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 | | -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 ~ +60°C (-40°F ~ +140°F) / Less than 95% RH POE+ Mode 55°C (Hysteresis 5°C) Wise IR 8m(26.25ft) | |
| Certification | IP66, IP67, NEMA4X, IK10 | | IP66, IP67, NEMA4X, IK10 | | IP52, IK08 | | IP66, IK10, NEMA4X | |
| Power Consumption | PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W | | PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W | | PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W | | PoE: Max 12.95W, typical 9.4W, 12VDC: Max 12.9W, typical 9.0W / PoE+: Max 23.0W, typical 9.4W, 12VDC: Max 22.0W, typical 9.0W | |
| Product Dimensions / Weight | ø 93.4x276.6mm(ø 3.68x10.89"), 1640g(3.62 lb) | | ø 160x118mm(ø 6.30x4.65"), 1450g(3.20 lb) | | ø 160x118mm(ø 6.30x4.65"), 1350g(2.98 lb) | | ø 160x72mm(6.23x2.84"), 1,170g (2.58lb) | |

AI Focus PTZ



XNP-C9310R
8MP 31x AI IR PTZ Camera

AI PTZ Plus



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

AI PTZ Plus



XNP-C9253R
8MP 25x AI IR PTZ Camera

AI PTZ Plus



XNP-C9253
8MP 25x AI PTZ Camera

AI PTZ Plus



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: 0.06Lux(F1.36, 1/30sec, 30 IRE) BW: 0.006Lux(F1.36, IR LED Off), 0Lux (IR LED On) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) |
| Video 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, total 800x zoom) | 5~125mm(25x) zoom (digital 32x, total 800x zoom) | 5~150mm(30x) zoom (digital 32x, total 960x zoom) |
| Angular Field of View | H : 60.6° (Wide) ~ 2.59° (Tele) V : 35.1° (Wide) ~ 1.45° (Tele) D : 68.8° (Wide) ~ 2.97° (Tele) | H: 57.42° (Wide)~2.19° (Tele) V: 33.54° (Wide)~1.25° (Tele) | H: 57.42° (Wide)~2.71° (Tele) V: 33.54° (Wide)~1.55° (Tele) | H: 57.42° (Wide)~2.71° (Tele) V: 33.54° (Wide)~1.55° (Tele) | H: 57.42° (Wide)~2.19° (Tele) V: 33.54° (Wide)~1.25° (Tele) |
| Pan / Tilt / Rotate | 360° Endless / -20° ~90° | | | | |
| IR Viewable Length | WiseIR 250m(820ft) | Wise IR 200m (656.17ft) | Wise IR 200m(656.17ft) | - | Wise IR 200m(656.17ft) |
| Day & Night | Auto (ICR)/Colour/BW/Schedule | | | | |
| Wide Dynamic Range | extremeWDR(120dB) | | | | |
| Digital Noise Reduction | WiseNR II(Based on AI engine), SSNRV | | | | |
| Digital Image Stabilization | Support(built-in gyro sensor) | | | | |
| Analytics | <p>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, Audio detection, Sound classification(with NW I/O Box : SPM-4210), Shock detection, Virtual area(Appear/Disappear)</p> | | | | |
| Business Intelligence | - | | | | |
| Alarm I/O | Compatible with NW I/O Box (Optional: SPM-4210) | | | | |
| Audio I/O | Compatible with NW I/O Box (Optional: SPM-4210) | | | | |
| Video Compression | H.265/H.264, 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 | -50°C~-+55°(-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°(-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, IK10, NEMA4X Safety(UL, KC-SDOC), EMC(FCC, CE, VCCI, RCM, KC) 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) | | | |
| 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") / 5600g (12.34lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 184.9x318.8mm(7.28x12.55") / 5600g (12.34lb) |
| Additional Features | Upgraded preset accuracy, Object auto tracking, Target lock tracking, Quick zoom, Focus scan, Wise focus | Upgraded preset accuracy, Object auto tracking, Target lock tracking | Upgraded preset accuracy, Object auto tracking, Target lock tracking | Upgraded preset accuracy, Object auto tracking, Target lock tracking | Upgraded preset accuracy, Object auto tracking, Target lock tracking |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION

AI PTZ Plus

XNP-C8253R
 6MP 40x AI IR PTZ Camera

AI PTZ Plus

XNP-C8253
 6MP 25x AI PTZ Camera

AI Focus PTZ

XNP-C7310R
 4MP 31x AI + IR PTZ Camera

AI PTZ Plus

XNP-C6403RW
 2MP 40x AI + Wiper + IR PTZ Camera

AI PTZ Plus

XNP-C6403R
 2MP 40x AI + IR PTZ Camera

AI PTZ Plus

XNP-C6403
 2MP 40x AI PTZ Camera

| | | | | | | |
|-----------------------------------|---|--|--|---|---|--|
| Imaging Device | 1/2.8" CMOS | 1/2.8" CMOS | 1/1.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 6MP / 30fps | 6MP / 30fps | 4MP / 60fps | 2MP / 60fps | 2MP / 60fps | 2MP / 60fps |
| Min. Illumination | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec) | Colour: 0.04Lux (F1.36, 1/30sec, 30IRE) BW: 0.004Lux(F1.36, IR LED Off), 0Lux (IR LED On) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec) |
| 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) Support Quick zoom | 4.25~170mm(40x) zoom (digital 32x, total 1280x zoom) | 4.25~170mm(40x) zoom (digital 32x, total 1280x zoom) | 4.25~170mm(40x) zoom (digital 32x, total 1280x zoom) |
| Angular Field of View | H: 57.42° (Wide)~2.71° (Tele) V: 33.54° (Wide)~1.55° (Tele) | H: 57.42° (Wide)~2.71° (Tele) V: 33.54° (Wide)~1.55° (Tele) | H: 59.4° (Wide)~2.54° (Tele) V: 35.8° (Wide)~1.49° (Tele) | H: 65.66° (Wide)~1.88° (Tele) V: 39.4° (Wide)~1.09° (Tele) | H: 65.66° (Wide)~1.88° (Tele) V: 39.4° (Wide)~1.09° (Tele) | H: 65.66° (Wide)~1.88° (Tele) V: 39.4° (Wide)~1.09° (Tele) |
| Pan / Tilt / Rotate | 360° Endless / -20° ~90° | | | | | |
| IR Viewable Length | Wise IR 200m(656.17ft) | - | WiseIR 300m(984ft) | Wise IR 200m (656.17ft) | Wise IR 200m (656.17ft) | - |
| Day & Night | Auto (ICR)/Colour/BW/Schedule | | | | | |
| Wide Dynamic Range | extremeWDR (120dB) | extremeWDR (120dB) | extremeWDR (120dB) | extremeWDR (150dB) | extremeWDR (150dB) | extremeWDR (150dB) |
| Digital Noise Reduction | 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 Detection Shot 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, Audio detection, Sound classification(with NW I/O Box : SPM-4210), Shock detection, Virtual area(Appear/Disappear) | | | | | |
| Business Intelligence | - | | | | | |
| Alarm I/O | Compatible with NW I/O Box (Optional: SPM-4210) | | | | | |
| Audio I/O | Compatible with NW I/O Box (Optional: SPM-4210) | | | | | |
| Video Compression | H.265/H.264, 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 | -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 | -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 a bove -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) * Start up should be done at above -30°C 0~100%RH(Condensing) Humidity control with AIR vent | -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 | -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 Humidity control with AIR vent |
| Certification | IP66, 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) | IP66/67, 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, 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) |
| Power Consumption | Typical 24W, Max 40W | Typical 24W, Max 25.5W | HPoE: Max 62W, typical 23W | Typical 26W, Max 46W | Typical 24W, Max 40W | Typical 24W, Max 25.5W |
| Product Dimensions / Weight | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 188x264.9mm(ø 7.40x10.47") / 4400g (9.70lb) | ø 184.9x318.8mm(7.28x12.55") / 5600g (12.34lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 158x293.3mm (6.22x11.55") / 3,200g(7.05lb) |
| Additional Features | Upgraded preset accuracy, Object auto tracking, Target lock tracking | Upgraded preset accuracy, Object auto tracking, Target lock tracking | Upgraded preset accuracy, Object auto tracking, Target lock tracking, Quick zoom, Focus scan, Wise focus | Upgraded preset accuracy, Object auto tracking, Target lock tracking | Upgraded preset accuracy, Object auto tracking, Target lock tracking | Upgraded preset accuracy, Object auto tracking, Target lock tracking |



PNO-A9311R
8MP 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



PND-A9081RF
8MP AI IR Dome Camera



PNB-A9001
8MP AI Box Camera

| | | | | | | |
|-----------------------------------|---|---|---|--|--|---|
| Imaging Device | 1/1.8" CMOS | | | | | |
| Resolution / Max. Frame Rate | 4K / 30fps | | 8MP / 30fps | | | |
| Min. Illumination | Colour: 0.075Lux(F1.36, 1/30sec, 30IRE) BW: 0.0075Lux(F1.36, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on) | Colour: 0.03Lux(F1.2, 1/30sec) B/W: 0.003Lux(F1.2, 1/30sec) |
| Video 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) | 6.91~214.7mm (31x) motorized varifocal | | 4.5~10mm(2.2x) motorized varifocal | | | - |
| Angular Field of View | H: 60.92° (Wide)~2.2° (Tele) V: 35.26° (Wide)~1.24° (Tele) D: 69.18° (Wide)~2.52° (Tele) | H: 101.4°(Wide)~45.5°(Tele) V: 53.6°(Wide)~25.5°(Tele) D: 120.7°(Wide)~52.3°(Tele) | H: 101.4°(Wide)~45.5°(Tele) V: 53.6°(Wide)~25.5°(Tele) D: 120.7°(Wide)~52.3°(Tele) | H: 101.4°(Wide)~45.5°(Tele) V: 53.6°(Wide)~25.5°(Tele) D: 120.7°(Wide)~52.3°(Tele) | H: 101.4°(Wide)~45.5°(Tele) V: 53.6°(Wide)~25.5°(Tele) D: 120.7°(Wide)~52.3°(Tele) | - |
| Pan / Tilt / Rotate | - | - | 0°~360° / -45°~85° / 0°~355° | 0°~360° / -45°~85° / 0°~355° | 0°~360° / -45°~85° / 0°~355° | - |
| IR Viewable Length | WiseIR 70m(229.66ft) | | WiseIR 30m(98.42ft) | | | |
| Day & Night | Auto(ICR) | | | | | |
| Wide Dynamic Range | 120dB | | | | | |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | | | | |
| Digital Image Stabilisation | Support (built-in gyro sensor) | | | | | |
| Analytics | <p>Classified object type: Person/Face/Vehicle/License plate</p> <p>Attributes: Person(Gender, Colour and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Colour)</p> <p>Support BestShot per object</p> <p>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</p> <p>Analytics events - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)</p> <p>Support WiseDetector for Adding custom objects</p> <p>*Some of the video analytics only works with people and vehicle detection</p> | | | | | |
| 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) / line out | Selectable (mic in/line in) / line out | Selectable (mic in/line in/ built-in mic) / line out | Selectable (mic in/line in) / line out | Selectable (mic in/line in/ built-in mic) / line out |
| Video Compression | H.265/H.264: Main/High, MJPEG | | | | | |
| WiseStream | Manual(5ea 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 2slot Max. 512GB(256GBx2) | | Micro SD/SDHC/SDXC 2slots 512GB | | | |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform - Wise AI 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 | -50°C ~ +55°C(-58°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C | -50°C ~ +55°C(-58°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C | -25°C ~ +50°C (-13°F ~ +122°F) / Less than 90% RH | -25°C ~ +50°C (-13°F ~ +122°F) / Less than 90% RH | -10°C ~ +55°C(+14°F ~ +131°F) / Less than 90% RH |
| Certification | IP66/IP67, IK10, NEMA4X | IP66/IP67, IK10, NEMA4X | IP66/IP67/IP6K9K, IK10+, NEMA4X | IP52, IK10 | IP52, IK10, Plenum rate | - |
| Power Consumption | PoE+: Max 25.5W, typical 14.0W 12VDC: Max 24.0W, typical 12.7W | PoE+: Max 20.0W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W | PoE+: Max 20.00W, typical 17.00W 12VDC: Max 18.70W, typical 15.00W | PoE+: Max 20.00W, typical 16.00W 12VDC: Max 17.70W, typical 14.00W | PoE+: Max 20.00W, typical 16.00W 12VDC: Max 17.70W, typical 14.00W | PoE+: Max 16.50W, typical 12.50W 12VDC: Max 13.50W, typical 10.80W |
| Product Dimensions / Weight | Ø136.2x358.7mm(Ø5.36x14.12") (Without sunshield), 3200g(7.05lb) * backbox: Ø160mm(Ø6.30") | Ø91.0x368.6mm (3.58" x 14.51") (Without sunshield), 2.48Kg (5.47lb) | Ø180x125mm(7.09x4.92"), 1.90Kg (4.19lb) | Ø160x125mm(6.30x4.92"), 1.60Kg (3.53lb) | Ø205x163mm(8.07x4.92"), 1.95Kg (4.30lb) | 81x67x165mm(3.19x2.64x6.48"), 0.88kg(1.94lb) |



PNO-A6081R
2MP AI IR Bullet Camera



PNV-A6081R
2MP AI IR Vandal Dome Camera



PND-A6081RV
2MP AI IR Dome Camera



PND-A6081RF
2MP AI IR Dome Camera



PNB-A6001
2MP AI Box Camera

| | | | | | | |
|-----------------------------------|---|--|---|--|---|---|
| Imaging Device | 1/2" CMOS | | 1/2" CMOS | | 1/2" CMOS | |
| Resolution / Max. Frame Rate | 2MP / 120fps | | 2MP / 120fps | | 2MP / 120fps | |
| Min. Illumination | Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W: 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | | Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W: 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | | Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W: 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | |
| Video Out | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | | 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) | 4.38~9.33mm(2.13x) motorized varifocal | | | | | - |
| Angular Field of View | H:103.1°(Wide)~44.5°(Tele) / V:54.2°(Wide)~24.9°(Tele) / D:124°(Wide)~51.1°(Tele) | | H:103.1°(Wide)~44.5°(Tele) / V:54.2°(Wide)~24.9°(Tele) / D:124°(Wide)~51.1°(Tele) | | H:103.1°(Wide)~44.5°(Tele) / V:54.2°(Wide)~24.9°(Tele) / D:124°(Wide)~51.1°(Tele) | |
| Pan / Tilt / Rotate | - | | 0° ~360° / -45°~85° / 0° ~355° | | 0° ~360° / -45° ~85° / 0° ~355° | |
| IR Viewable Length | WiseIR 40m(131.23ft) | | WiseIR 40m(131.23ft) | | WiseIR 40m(131.23ft) | |
| Day & Night | Auto (ICR) | | Auto (ICR) | | Auto (ICR) | |
| Wide Dynamic Range | 120dB | | 120dB | | 120dB | |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | | | | |
| Digital Image Stabilization | Support (built-in gyro sensor) | | Support (built-in gyro sensor) | | Support (built-in gyro sensor) | |
| Analytics | <p>Classified object type: Person/Face/Vehicle/License plate</p> <p>Attributes: Person(Gender, Colour and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Colour)</p> <p>Support BestShot per object</p> <p>Analytics events based on AI engine</p> <p>- Object detection, Virtual line*(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip&Fall detection</p> <p>Analytics events - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) Support WiseDetector for Adding custom objects</p> | | | | | |
| 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 | Line in / Line out | | Line in / Line out | | Line in / Line out | |
| Video Compression | Selectable (mic in/line in) / line out | | Selectable (mic in/line in) / line out | | Selectable (mic in/line in) / line out | |
| WiseStream | Manual(5ea 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 | <p>ONVIF Profile S/G/T/M, SUNAPI(HTTP API)</p> <p>Hanwha Vision Open Platform</p> <p>- WiseAI application included(Analytic based on AI, Business intelligence)</p> | | | | | |
| Operating Temperature / Humidity | -50°C ~ +55°C(-58°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C | | -50°C ~ +55°C(-58°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C | | -25°C ~ +50°C (-13°F ~ +122°F) / Less than 90% RH | |
| Certification | IP66, IP67, IK10, NEMA4X | | IP66, IP67, IP6K9K, IK10+, NEMA4X | | IP52, IK10, Plenum rate | |
| Power Consumption | PoE+: Max 19.50W, typical 16.00W 12VDC: Max 17.00W, typical 13.50W | | PoE+: Max 19.50W, typical 16.00W 12VDC: Max 17.00W, typical 13.50W | | PoE+: Max 19.50W, typical 16.00W 12VDC: Max 17.00W, typical 13.50W | |
| Product Dimensions / Weight | Ø91.0x368.6mm (3.58" x 14.51") (Without sunshield), 2.48Kg (5.47lb) | | Ø180x125mm(7.09x4.92"), 1.90Kg (4.19lb) | | Ø205x163mm(8.07x4.92"), 1.95Kg (4.30lb) | |
| | 81x67x165mm(3.19x2.64x6.48"), 0.88kg(1.94lb) | | | | | |



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



PNM-C16083RVQ
4MP x 4CH AI Camera



PNM-C32083RVQ
4K x 4CH AI Camera

| | | | | |
|-----------------------------------|--|---|--|---|
| Imaging Device | 1/2.8" CMOS x 4CH | 1/2.8" CMOS x 1CH PTZ | 1/2.8" CMOS x 4CH | 1/2.8" CMOS x 4CH |
| Resolution / Max. Frame Rate | 8MP/20fps | 2MP / 60fps | 4MP / 30fps | [AI On] 8MP Max. 15fps [AI Off] 8MP Max. 20fps |
| Min. Illumination | Colour: 0.1Lux(F1.5, 1/30sec, 30IRE) BW: 0.01Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.075Lux(F1.5, 1/30sec, 30IRE) BW: 0.0075Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.1Lux(F1.5, 1/30sec, 30IRE) BW: 0.01Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on) |
| Video Out | - | | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation |
| Focal Length (Zoom Ratio) | 3.3~5.7mm(1.7x) motorized varifocal | 4.25~170mm(40x) zoom(digital 32x, total 1280x zoom) | 3.3~5.7mm(1.7x) motorized varifocal | 3.3~5.7mm(1.7x) motorized varifocal |
| Angular Field of View | H: 109° (Wide)~56° (Tele) V: 55° (Wide)~31° (Tele) D: 136° (Wide)~65° (Tele) | H: 65.66° (Wide)~1.88° (Tele) V: 39.40° (Wide)~1.09° (Tele) | H: 99.8° (Wide)~53.0° (Tele) V: 53.8° (Wide)~30.7° (Tele) D: 124.3° (Wide)~61.8° (Tele) | H: 108.3° (Wide)~56.4° (Tele) V: 54.7° (Wide)~31.2° (Tele) D: 135.5° (Wide)~65.2° (Tele) |
| Pan / Tilt / Rotate | 0°~360° / 9°~65° / 0°~90° * Tilt angle with Shield IR: 40°~65° | 0°~360° / -20°~90° | 0~360° / 0~73° / 0~90° | 0~360° / 0~73° / 0~90° |
| IR Viewable Length | 20m (65.62ft) | WiselR 200m (656.17ft) | WiselR 15m(49.21ft) | WiselR 15m(49.21ft) |
| Day & Night | Auto (ICR) | | Auto(ICR) | Auto (ICR) |
| Wide Dynamic Range | 120dB | extremeWDR (150dB) | 120dB | 120dB |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V |
| Digital Image Stabilization | - | Support | - | - |
| Analytics | Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type: car/bus/truck/motorcycle/bicycle) Support BestShot Analytics events based on AI engine :Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events : Defocus detection, Motion detection, Tampering, Virtual area(Appear/Disappear) | Analytics events: Motion detection, Fog detection, Tampering, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Virtual line(Crossing/Direction) Support Audio detection, Sound classification via optional I/O box (SPM-4210) | Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type: car/bus/truck/motorcycle/bicycle) Support BestShot Analytics events based on AI engine - Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear) | |
| Business Intelligence | - | - | - | - |
| Alarm I/O | - | - | 2 configurable I/O ports * Support extra alarm I/O via optional SPM-4210 I/O box | 2 configurable I/O ports * Support extra alarm I/O via optional SPM-4210 I/O box |
| Audio I/O | - | - | Selectable(mic in/line in) / - | Selectable(mic in/line in) / - |
| Video Compression | H.265/H.264, MJPEG | H.265/H.264, MJPEG | H.265/H.264, MJPEG | H.265/H.264, MJPEG |
| WiseStream | Manual(Sea area), WiseStream II, WiseStream III (Based on AI engine) | | Manual(Sea area), WiseStream II, WiseStream III (Based on AI engine) | Manual(Sea area), WiseStream II, WiseStream III (Based on AI engine) |
| Streaming | Unicast(10 users) / Multicast Multiple streaming (Up to 3 profiles) | Unicast(20 users) / Multicast Multiple streaming (Up to 10 profiles) | Unicast(10 users) / Multicast Multiple streaming(Up to 3 profiles per channel) | Unicast(10 users) / Multicast Multiple streaming(Up to 3 profiles per channel) |
| Edge Storage | Micro SD/SDHC/SDXC 2slot 1TB(512GBx2) | | Micro SD/SDHC/SDXC 2slot Max. 2TB(1TBx2) | Micro SD/SDHC/SDXC 2slot Max. 2TB(1TBx2) |
| Application Programming Interface | ONVIF Profile S/T, SUNAPI (HTTP API) Hanwha Vision Open Platform | | ONVIF Profile S/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform | ONVIF Profile S/T/M, SUNAPI(HTTP API) Wisenet 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°C0~95% RH(non-condensing) | | -40°C~+55°C(-40°F~+131°F) * Start up should be done at above -35°C 0~95% RH(non-condensing) Humidity control with AIR vent | -40°C~+55°C(-40°F~+131°F) * Start up should be done at above -35°C 0~95% RH(non-condensing) Humidity control with AIR vent |
| Certification | IP66, IK10, NEMA4X | | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X |
| Power Consumption | HPoE: Max 64.00W, typical 45.00W | | PoE+: Max 25.5W, typical 22.0W PoE++: Max 33.0W, typical 22.0W | PoE+: Max 25.5W, typical 22.0W PoE++: Max 33.0W, typical 22.0W |
| Product Dimensions / Weight | ø 140x110.2mm(ø 5.51x4.34"), 875g(1.93 lb) | | ø 250x114.2mm(ø 9.84x4.50"), 2730g(6.02 lb) | ø 250x114.2mm(ø 9.84x4.50"), 2820g(6.22 lb) |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION



PNM-C16013RVQ
4MP x 4CH AI Camera



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



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



PNM-C9022RV
2MP x 4CH AI Panoramic Camera

| | | | | |
|-----------------------------------|--|--|--|---|
| Imaging Device | 1/2.8" CMOS x 4CH | 1/2.8" CMOS x 2CH | 1/2.8" CMOS x 2CH | 1/2.8" CMOS x 4CH |
| Resolution / Max. Frame Rate | 4MP/15fps | 6MP / 15fps | 2MP / 30fps | 2MP / 20fps x 4CH |
| Min. Illumination | Colour: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.16lux(F1.67, 1/30sec, 30IRE) BW: 0.016lux(F1.67, 1/30sec, 30IRE), 0lux(IR LED on) | Colour: 0.035lux(F2.2, 1/30sec, 30IRE) BW: 0.0035lux(F2.2, 1/30sec, 30IRE), 0lux(IR LED on) | Colour: 0.1Lux(F2.0, 1/30sec) BW: 0.01Lux(F2.0, 1/30sec), 0Lux(IR LED on) |
| Video Out | USB: Micro USB Type B, 2592x1520 for installation | USB: micro USB Type B, 1280x720 for installation | USB: micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation |
| Focal Length (Zoom Ratio) | 3.19mm fixed focal | 3.54~6.69mm(1.9x) motorized varifocal | 3~6mm(2x) motorized varifocal | 2.8mm fixed focal(x4) |
| Angular Field of View | H: 97° / V: 54° / D: 116° | H: 96° (Wide) ~ 47° (Tele) V: 51° (Wide) ~ 26° (Tele) D: 113° (Wide) ~ 54° (Tele) | H: 107° (Wide) ~ 56° (Tele) V: 57° (Wide) ~ 31° (Tele) D: 126° (Wide) ~ 64° (Tele) | H: 209° / V: 60° |
| Pan / Tilt / Rotate | 0~360° (100° per CH) / 0~75° / 0~90° | 0° ~ 355° / 0° ~ 78° / 0° ~ 180° | 0° ~ 355° / 0° ~ 78° / 0° ~ 180° | 0° ~ 360° / 0° ~ 65° / - |
| IR Viewable Length | 20m(65.62ft) | 25m (82ft) | 25m (82ft) | 20m (65.62ft) |
| Day & Night | Auto (ICR) | Auto (ICR) | Auto (ICR) | Auto (ICR) |
| Wide Dynamic Range | 120dB | extremeWDR (120dB) | extremeWDR (120dB) | extremeWDR (120dB) |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V |
| Digital Image Stabilization | - | | | |
| Analytics | <p>Classified object type: Person/Face/Vehicle/License plate</p> <p>Attributes: Vehicle (Type: Car/Bus/Truck/Motorcycle/Bicycle)</p> <p>Support Detection shot</p> <p>Analytics events based on AI engine - Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)</p> <p>Analytics events - Motion detection, Tampering, Virtual area(Appear/Disappear) Audio detection, Sound classification (with NW I/O box SPM-4210)</p> | <p>Classified object type: Person/Face/Vehicle/License plate</p> <p>Attributes: Vehicle(Type: car/bus/truck/motorcycle/bicycle)</p> <p>Support BestShot</p> <p>Analytics events based on AI engine - Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)</p> <p>Analytics events - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)</p> | | |
| Business Intelligence | - | | | |
| Alarm I/O | 2 configurable I/O ports * Support extra alarm I/O via optional SPM-4210I/O box | Support Alarm via optional SPM-4210I/O box | Support Alarm via optional SPM-4210I/O box | 2 configurable I/O ports |
| Audio I/O | Selectable(mic in/line in) / - | Audio in/out via optional SPM-4210I/O box | Audio in/out via optional SPM-4210I/O box | Selectable (mic in/line in) / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | |
| WiseStream | Manual(5ea area), WiseStream II, WiseStream III (Based on AI engine) | WiseStream II, WiseStream III (Based on AI engine) | Manual(5ea area), WiseStream II, WiseStream III (Based on AI engine) | Manual(5ea area), WiseStream II, WiseStream III (Based on AI engine) |
| Streaming | Up to 4 profiles per channel | Unicast (10 users) / Multicast 5 profiles per channel | Unicast (10 users) / Multicast 5 profiles per channel | Unicast(20 users) / Multicast Multiple streaming (Up to 3 profiles, 2 virtual channel support) |
| Edge Storage | Micro SD/SDHC/SDXC 2slot Max. 1TB(512GBx2) | micro SD/SDHC/SDXC 1slot Max. 512GB | micro SD/SDHC/SDXC 1slot Max. 512GB | micro SD/SDHC/SDXC 2slot Max. 1TB(512GB*2) |
| Application Programming Interface | ONVIF Profile S/T/M, SUNAPI(HTTP API) Hanuha Vision Open Platform | ONVIF Profile S/T, SUNAPI(HTTP API) Open platform | ONVIF Profile S/T, SUNAPI(HTTP API) Open platform | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanuha Vision Open Platform |
| Operating Temperature / Humidity | -40°C~+55°C(-40°F~+131°F) * Start up should be done at above -35°C 0~95% RH(non-condensing) Humidity control with AIR vent | -40°C~+55°C(-40°F~+131°F) / Less than 95% RH(Non-condensing) | -40°C~+55°C(-40°F~+131°F) / Less than 95% RH(Non-condensing) | -40°C~+55°C(-40°F~+131°F) / 0~95% RH(non-condensing) |
| Certification | IP66, NEMA4X, IK09 | IP66, IP67, NEMA4X, IK10 | IP66, IP67, NEMA4X, IK10 | IP66, IK10, NEMA4X |
| Power Consumption | - | PoE+: Max 21W, typical 16.5W | PoE+: Max 20W, typical 15.5W | PoE+: Max 24.5W, typical 11.3W 12VDC: Max 22.0W, typical 10.4W Power redundancy failover |
| Product Dimensions / Weight | ø 200x80mm(ø 7.87x3.15"), 1380g(3.04lb) | 215(W)x135(D)x93.2(H)mm(8.46"x5.31"x3.67"), 1330g | 215(W)x135(D)x93.2(H)mm(8.46"x5.31"x3.67"), 1330g | ø 253x170mm(9.96"x6.69"), 2900g(6.39lb) |



QNE-C9013RL
8MP AI Dual Light Flateye Camera



QNE-C8013RL
5MP AI Dual Light Flateye Camera



QNO-C9083R
8MP AI IR Bullet Camera



QNO-C8083R
5MP AI IR Bullet Camera



QNO-C6083R
2MP AI IR Bullet Camera

| | | | | | |
|-----------------------------------|---|--|--|--|--|
| Imaging Device | 1/2.8" CMOS | | | | |
| Resolution / Max. Frame Rate | 8MP / 30fps | 5MP/30fps | 8MP/30fps | 5MP/30fps | 2MP/30fps |
| Min. Illumination | Colour: 0.034Lux (F1.6, 1/30sec) BW: 0.0034Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.022Lux (F1.2, 1/30sec) BW: 0.0022Lux (F1.2, 1/30sec, 30IRE), 0Lux(IR LED on) | 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) | Colour: 0.04Lux (F1.6, 1/30sec) BW: 0.004Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on) |
| Video Out | - | - | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation |
| Focal Length (Zoom Ratio) | 3.0mm fixed focal | 3.0mm fixed focal | 3.2~10.2mm(3.2x) motorized varifocal | 3.2~10.2mm(3.2x) motorized varifocal | 3.2~10.2mm(3.2x) motorized varifocal |
| Angular Field of View | H: 108° / V: 59° / D: 127° | H: 97° / V: 53° / D: 113° | 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)~32.2°(Tele) V: 54.2°(Wide)~18.3°(Tele) D: 119.0°(Wide)~36.7°(Tele) |
| Pan / Tilt / Rotate | 0°~350° / 0°~75° / 0°~360° | 0°~350° / 0°~75° / 0°~360° | 0°~360° / 0°~100° / 0°~360° | 0°~360° / 0°~100° / 0°~360° | 0°~360° / 0°~100° / 0°~360° |
| IR Viewable Length | White LED : 30m(98.42ft) IR : 30m(98.42ft) | White LED : 30m(98.42ft) IR : 30m(98.42ft) | 30m(98.42ft) | 30m(98.42ft) | 40m(131.23ft) |
| Day & Night | Auto(ICR) | | | | |
| Wide Dynamic Range | 120dB | 120dB | 120dB | 120dB | 120dB |
| Digital Noise Reduction | SSNR V , WiseNR II (Based on AI engine) | SSNR V , WiseNR II (Based on AI engine) | SSNR V , WiseNR II (Based on AI engine) | SSNR V , WiseNR II (Based on AI engine) | SSNR V , WiseNR II (Based on AI engine) |
| Digital Image Stabilization | - | - | - | - | - |
| Analytics | <p>Classified object type: Person/Vehicle Attributes: Person, Vehicle(Type: car/bus/truck/motorcycle/bicycle) 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, Motion Detection Analytics events – Defocus detection, Tampering, Virtual area(Appear/Disappear) Support WiseDetector for Adding custom objects *Some of the video analytics only works with people and vehicle detection</p> | | | | |
| Business Intelligence | Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap | | | | |
| Alarm I/O | - | - | Input 1ea / Output 1ea | Input 1ea / Output 1ea | Input 1ea / Output 1ea |
| 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/High, MJPEG | H.265/H.264: Main/High, MJPEG | H.265/H.264: Main/High, MJPEG | H.265/H.264: Main/High, MJPEG | H.265/H.264: Main/High, MJPEG |
| WiseStream | Manual(5ea area), 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 | Micro SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC 1slot 256GB | 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 | -40°C~+60°C(-40°F~+140°F) / 0~95% RH * Start up should be done at above -30°C Humidity control with AIR vent | -40°C~+60°C(-40°F~+140°F) / 0~95% RH * Start up should be done at above -30°C Humidity control with AIR vent | -30°C~+55°C(-22°F~+131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control with AIR vent | -30°C~+55°C(-22°F~+131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control with AIR vent | -40°C~+55°C(-40°F~+131°F) / 0~95% RH(non-condensing) Humidity control with AIR vent |
| Certification | IP66/IP67, IK10 | IP66/IP67, IK10 | IP66, IK10 | IP66, IK10 | IP66, IK10 |
| Power Consumption | PoE: Max 10.0W, typical 4.5W | PoE: Max 10.0W, typical 4.5W | PoE: Max 12W, typical 5.3W | PoE: Max 12W, typical 5.3W | PoE: Max 8.9W, typical 3.7W |
| Product Dimensions / Weight | ø 140.0x99.6mm(ø 5.51x3.92"), 790g(1.74 lb) | ø 140.0x99.6mm(ø 5.51x3.92"), 790g(1.74 lb) | ø 93.4x245.8mm(ø 3.68x9.68"), 930g(2.05 lb) | ø 93.4x245.8mm(ø 3.68x9.68"), 930g(2.05 lb) | ø 93.4x245.8mm(ø 3.68x9.68"), 930g(2.05 lb) |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION



QNV-C9083R
8MP AI IR Vandal Dome Camera



QNV-C8083R
5MP AI IR Vandal Dome Camera



QNV-C6083R
2MP AI IR Vandal Dome Camera



QNV-C9011R
8MP AI IR Vandal Dome Camera

| | | | | |
|-----------------------------------|---|--|--|--|
| Imaging Device | 1/2.8" CMOS | | | |
| Resolution / Max. Frame Rate | 8MP/30fps | 5MP / 30fps | 2MP / 30fps | 8MP / 30fps |
| Min. Illumination | Colour: 0.06Lux(F1.6, 1/30sec, 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) | Colour: 0.04Lux(F1.6, 1/30sec) BW: 0.004Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.03Lux(F1.6, 1/30sec, 30IRE) BW: 0.003Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on) |
| Video Out | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation HDMI: 1080p@30/25fps (60/50Hz) * HDMI out is supported through an optional cable(SPP-C1900) | USB: Micro USB Type B, 1280x720 for installation |
| Focal Length (Zoom Ratio) | 3.2~10.2mm(3.2x) motorized varifocal | 3.2~10.2mm(3.2x) motorized varifocal | 3.2~10.2mm(3.2x) motorized varifocal | 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)~32.2°(Tele) V: 54.2°(Wide)~18.3°(Tele) D: 119.0°(Wide)~36.7°(Tele) | H: 108° / V: 59° / D: 127° |
| Pan / Tilt / Rotate | 0°~350° / -35°~70° / 0°~355° | 0°~350° / -35°~70° / 0°~355° | 0°~350° / -35°~70° / 0°~355° | 0°~350° / -35°~70° / 0°~355° |
| IR Viewable Length | 30m(98.42ft) | 30m(98.42ft) | 40m(131.23ft) | 20m(65.62ft) |
| Day & Night | Auto (ICR) | | | |
| Wide Dynamic Range | 120db | | | |
| Digital Noise Reduction | SSNR V , WiseNR II (Based on AI engine) | | | |
| Digital Image Stabilization | - | | | |
| Analytics | <p>Classified object type: Person/Vehicle Attributes: Person, Vehicle(Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine - Motion detection*, Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit) Analytics events - Defocus detection, Tampering, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection</p> | | | |
| Business Intelligence | Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap | | | |
| Alarm I/O | Input 1ea / Output 1ea * Alarm I/O is supported through an optional cable(SPP-C7400) | | | - |
| Audio I/O | Selectable(mic in/line in) / Line out | 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 | H.265/H.264: Main/High, MJPEG | H.265/H.264: Main/High, MJPEG |
| WiseStream | Manual(Sea area), WiseStream III (Based on AI engine) | Manual(Sea area), WiseStream III (Based on AI engine) | Manual(Sea area), WiseStream III | Manual(Sea area), 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 | Micro SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC 1slot 256GB | 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 | -30°C~+55°C(-22°F~+131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control with AIR vent | -30°C~+55°C(-22°F~+131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control with AIR vent | -40°C~+55°C(-40°F~+131°F) / 0~95% RH(non-condensing) Humidity control with AIR vent | -40°C~+55°C(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30°C Humidity control with AIR vent vapor control |
| Certification | IP66, IK10 | IP66, IK10 | IP66, IK10 | IP66, IK10, NEMA4X |
| Power Consumption | PoE: Max 12.95W, typical 5.3W | PoE: Max 12.95W, typical 5.3W | PoE: Max 9.8W, typical 4.0W | PoE: Max 8.5W, typical 4.9W |
| Product Dimensions / Weight | ø 140x110.2mm(ø 5.51x4.34"), 875g(1.93lb) | ø 140x110.2mm(ø 5.51x4.34"), 875g(1.93lb) | ø 140x110.2mm(ø 5.51x4.34"), 850g(1.87lb) | ø 110x77mm(ø 4.33x3.03"), 522g(1.15lb) |



QNV-C8011R
5MP AI IR Vandal Dome Camera



QNV-C8012
5MP AI IR Vandal Dome Camera



TNO-C8083E
5MP AI Explosion-proof bullet camera

| | | | |
|-----------------------------------|---|---|--|
| Imaging Device | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" 5MP CMOS |
| Resolution / Max. Frame Rate | 5MP / 30fps | 5MP / 30fps | 5MP / 30fps |
| Min. Illumination | Colour: 0.03Lux(F1.6, 1/30sec, 30IRE) BW: 0.003Lux(F1.6, 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(F1.6, 1/30sec, 30IRE) BW: 0.007Lux(F1.6, 1/30sec, 30IRE) |
| Video Out | USB: Micro USB Type B, 1280x720 for installation | USB: Micro USB Type B, 1280x720 for installation | - |
| Focal Length (Zoom Ratio) | 3.0mm fixed focal | 2.4mm fixed focal | 3.2~10.2mm(3.2x) motorized varifocal |
| Angular Field of View | H: 100° / V: 73° / D: 129° | H: 123° / V: 91° / D: 159° | H: 95°(Wide)~29°(Tele) V: 69°(Wide)~21°(Tele) D: 126°(Wide)~36°(Tele) |
| Pan / Tilt / Rotate | 0°~350° / -35°~70° / 0°~355° | 0°~350° / -35°~70° / 0°~355° | - |
| IR Viewable Length | 20m(65.62ft) | - | - |
| Day & Night | | Auto(ICR) | |
| Wide Dynamic Range | | 120dB | |
| Digital Noise Reduction | | SSNR V, WiseNR II (Based on AI engine) | |
| Digital Image Stabilization | | - | - |
| Analytics | <p>Classified object type: Person/Vehicle Attributes: Person, Vehicle(Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine - Motion detection*, Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit) Analytics events - Defocus detection, Tampering, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection</p> | | |
| Business Intelligence | Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap | | |
| Alarm I/O | - | - | - |
| Audio I/O | - | - | - |
| Video Compression | H.265/H.264: Main/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) | Manual(5ea area), WiseStream III (Based on AI engine) |
| Streaming | Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles) | Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles) | Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles) |
| Edge Storage | Micro SD/SDHC/SDXC 1 slot 256GB | Micro SD/SDHC/SDXC 1 slot 256GB | - |
| Application Programming Interface | ONVIF Profile S/G/T/M, SUNAPI(HTTP API) Hanwha Vision Open Platform | | ONVIF Profile S/T/M SUNAPI(HTTP API) |
| Operating Temperature / Humidity | -40°C~-55°C(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30°C Humidity control /w Air vapor control | -40°C~-55°C(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30°C Humidity control /w Air vapor control | -30°C~-55°C(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C |
| Certification | IP66, IK 10, NEMA4X | IP66, IK 10, NEMA4X | CE, KC, IP66, IK 10, ATEX, II 2 G Ex db IIC T6 Gb II 2 D Ex tb IIIC T80°C Db IECEX, Ex db IIC T6 Gb, Ex tb IIIC T80°C Db, JPEX, KCS |
| Power Consumption | PoE: Max 7W, typical 4.9W | PoE: Max 7W, typical 4.9W | PoE: Max 9.50W, typical 5.30W |
| Product Dimensions / Weight | ø 110x77mm(ø 4.33x3.03"), 522g(1.15lb) | ø 110x77mm(ø 4.33x3.03"), 522g(1.15lb) | ø 110.5 x 316.2mm(ø 4.35x12.44"), 4770g(10.51 lb) |



TNO-C3032TRA



TNO-C3022TRA



TNO-C3012TRA



TNO-C3030TRA



TNO-C3020TRA



TNO-C3010TRA

QVGA Radiometric AI Thermal Camera

| | | | | | | |
|-----------------------------------|---|--|---|--|--|---|
| Imaging Device | Uncooled micro bolometer (Spectral range: 8~14μm) | | | | | |
| Resolution | 768x576, 384x288(original) | | | | | |
| Max. Frame Rate | 8fps | | | 30fps | | |
| NETD | < 30mK | | | | | |
| Pixel pitch | 17μm | | | | | |
| Focal Length | 9.7mm fixed focal | 6.6mm fixed focal | 4.4mm fixed focal | 9.7mm fixed focal | 6.6mm fixed focal | 4.4mm fixed focal |
| Angular Field of View | H: 37.9° / V: 28.7° / D: 46.7° (iFoV: 1.8 mRad) | H: 60° / V: 43.8° / D: 77.8° (iFoV: 2.6 mRad) | H: 90° / V: 65.3° / D: 118.6° (iFoV: 3.9 mRad) | H: 37.9° / V: 28.7° / D: 46.7° (iFoV: 1.8 mRad) | H: 60° / V: 43.8° / D: 77.8° (iFoV: 2.6 mRad) | H: 90° / V: 65.3° / D: 118.6° (iFoV: 3.9 mRad) |
| Min. Object Distance | 2.8m | 1.4m | 0.6m | 2.8m | 1.4m | 0.6m |
| Video out | USB: Micro USB Type B, 768x576 for installation | | | | | |
| Analytics | <p>Classified object type: Person/Vehicle Support BestShot Analytics events based on AI engine - WiseMD, Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit) Analytics events - Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection</p> | | | | | |
| 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, whole FoV area | | | | | |
| Additional | Hybrid palettes, Spot temperature reading (ROI condition monitoring: Above/ Below/ Increase/ Decrease) | | | | | |
| WiseStream | Manual(5ea 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, IK10, NEMA4X | | | | | |
| Power Consumption | PoE: Max 10.8W, typical 9W 12VDC: Max 9.4W, typical 7.7W | | | | | |
| Dimensions (WxHxD) / Weight | ø 93.8x233.5mm (ø 3.69X/9.19"), 1700g(3.75 lb) | | | | | |



TNM-C4960TD

Bi-spectrum AI Thermal Camera



TNM-C4950TD

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, <60mK) | 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) BW: 0.005Lux(F1.7, 1/30sec) | - | Colour: 0.06Lux(F1.7, 1/30sec) BW: 0.005Lux(F1.7, 1/30sec) |
| Video Out | USB: Micro USB Type B, 1280x720 for installation | | USB: Micro USB Type B, 1280x720 for installation | |
| Focal Length (Zoom Ratio) | 25mm fixed focal | 10.9~29mm(2.6x) motorized varifocal | 13.5mm fixed focal | 10.9~29mm(2.6x) motorized varifocal |
| Angular Field of View | H: 17.4°, V: 13.1°, D: 21.6° (iFoV: 0.48 mRad) | H: 42.0°(Wide)~15.0°(Tele) / V: 22.8°(Wide)~8.4°(Tele) / D: 48.7°(Wide)~17.1°(Tele) | H: 31.9° V: 24.2°, D: 39.5° (iFoV: 0.89 mRad) | 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° / - | | -170°~+170° / -40°~50° / - | |
| IR Viewable Length | - | | - | |
| Day & Night | - | Auto(ICR) | - | Auto(ICR) |
| Wide Dynamic Range | - | WDR(120dB) | - | WDR(120dB) |
| Digital Noise Reduction | - | SSNR V, WiseNR II | - | SSNR V, WiseNR II |
| Digital Image Stabilization | - | Support(built-in gyro sensor) | - | Support(built-in gyro sensor) |
| Analytics | <p>Analytics events based on AI engine: Object detection (Person/Vehicle), Bestshot, IVA (Virtual line/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam</p> <p>Analytics events: Motion detection</p> | <p>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</p> <p>Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection</p> | <p>Analytics events based on AI engine: Object detection (Person/Vehicle), Bestshot, IVA (Virtual line/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam</p> <p>Analytics events: Motion detection</p> | <p>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</p> <p>Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection</p> |
| Business Intelligence | Vehicle counting | | Vehicle counting | |
| Alarm I/O | 4 configurable I/O ports | | 4 configurable I/O ports | |
| Audio I/O | Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1 Vrms | | Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1 Vrms | |
| Video Compression | H.265/H.264: Main/High, MJPEG | | H.265/H.264: Main/High, MJPEG | |
| WiseStream | WiseStream II | Manual(5ea area), WiseStream III | WiseStream II | Manual(5ea area), WiseStream III |
| Streaming | Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles) | | Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles) | |
| Edge Storage | Micro SD/SDHC/SDXC 2slots 512GB | | micro SD/SDHC/SDXC 2slots 512GB | |
| Application Programming Interface | ONVIF Profile S/T, SUNAPI(HTTP API) Hanwha Vision Open Platform (visible channel only) | | | |
| Operating Temperature / Humidity | -40°C to +60°C(-58°F to +140°F) * Start up should be done at above -30°C less than 95% RH(non-condensing) | | -40°C to +60°C(-58°F to +140°F) * Start up should be done at above -30°C less than 95% RH(non-condensing) | |
| Certification | IP66/IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9) | | IP66/IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9) | |
| Power Consumption | PoE+: Max 23.5W, Typ 16.0W 12VDC: Max 19.5W, Typ 14.0W | | 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")/ 4.53kg(9.99lb) | | 353.4(W)x287.5(H)x191.2(D)mm(13.92x11.32x7.53")/ 4.53kg(9.99lb) | |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION



TNM-C4940TD

Bi-spectrum AI Thermal Camera



NEW

TNM-C4942TDR

Radiometric Bi-spectrum AI Thermal Camera

| Imaging Device | Thermal | Visible | Thermal | Visible |
|-----------------------------------|---|--|--|--|
| | Uncooled micro bolometer (Spectral range: 8~14μm, 12μm, <60mK) | 1/1.8" CMOS | Uncooled micro bolometer (Spectral range: 8~14μm, 12μm, <60mK) | 1/1.8" CMOS |
| Resolution / Max. Frame Rate | 640x480 / 30fps | 3840x2160 / 30fps | 640x480 / 8fps | 3840x2160 / 30fps |
| Min. Illumination | - | Colour: 0.06Lux(F1.3, 1/30sec) BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on) | - | Colour: 0.06Lux(F1.3, 1/30sec) 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, 1280x720 for installation | |
| Focal Length (Zoom Ratio) | 9.1mm fixed focal | 4.4~9.3mm(2.2x) motorized varifocal | 9.1mm fixed focal | 4.4~9.3mm(2.2x) motorized varifocal |
| Angular Field of View | H: 50.0° / V: 37.0° / D: 63.8° (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 | - | 30m (98.42ft) | - | 30m (98.42ft) |
| Day & Night | - | Auto(ICR) | - | Auto(ICR) |
| Wide Dynamic Range | - | WDR(120dB) | - | WDR(120dB) |
| Digital Noise Reduction | - | SSNR V, WiseNR II | - | SSNR V, WiseNR II |
| Digital Image Stabilization | - | Support(built-in gyro sensor) | - | Support(built-in gyro sensor) |
| Analytics | <p>Analytics events based on AI engine: Object detection (Person/Vehicle), Bestshot, IVA (Virtual line/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam</p> <p>Analytics events: Motion detection</p> | <p>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</p> <p>Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)</p> <p>* Some of the video analytics only works with people and vehicle detection</p> | <p>Classified object type: Person/Vehicle Support BestShot</p> <p>Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit)</p> <p>Analytics events: Motion detection, Temperature detection</p> | <p>Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle (Type:car/bus/truck/motorcycle/bicycle) Support BestShot</p> <p>Analytics events based on AI engine: Object detection, Virtual line(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit)</p> <p>Analytics events: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)</p> <p>* Some of the video analytics only works with people and vehicle detection</p> |
| Business Intelligence | Vehicle counting | | - | |
| Alarm I/O | 4 configurable I/O ports | | 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 | | Selectable(mic in/line in) Line out Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms | |
| Video Compression | H.265/H.264: Main/High, MJPEG | | H.265/H.264: Main/High, MJPEG | |
| WiseStream | WiseStream II | Manual(5ea area), WiseStream III | WiseStream II | Manual(5ea area), WiseStream III |
| Streaming | Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles) | | Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles) | |
| Edge Storage | Micro SD/SDHC/SDXC 2slots 512GB | | Micro SD/SDHC/SDXC 2slots 512GB | |
| Application Programming Interface | ONVIF Profile S/T, SUNAPI(HTTP API) Hanwha Vision Open Platform (visible channel only) | | | |
| Operating Temperature / Humidity | -40°C to +60°C(-58°F to +140°F) * Start up should be done at above -30°C less than 95% RH(non-condensing) | | -40°C to +60°C(-58°F to +140°F) * Start up should be done at above -30°C less than 95% RH(non-condensing) | |
| Certification | IP66/IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9) | | IP66/IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9) | |
| Power Consumption | PoE+: Max 25.5W, Typ 16.0W 12VDC: Max 21.5W, Typ 14.0W | | PoE+: Max 25.5W, Typ 16.0W 12VDC: Max 21.5W, Typ 14.0W | |
| Product Dimensions / Weight | 353.4(W)x287.5(H)x191.2(D)mm(13.92x11.32x7.53")/ 4.53kg(9.99lb) | | 353.4(W)x287.5(H)x191.2(D)mm(13.92x11.32x7.53")/ 4.53kg(9.99lb) | |



TNM-C4940TDR

Radiometric Bi-spectrum AI Thermal Camera



TNM-C3622TDR

Radiometric Bi-spectrum AI Thermal Camera

| | Thermal | Visible | Thermal | Visible |
|-----------------------------------|---|---------|--|---------|
| Imaging Device | Uncooled micro bolometer (Spectral range: 8~14μm, 12μm, <60mK) | | Uncooled micro bolometer (Spectral range: 8~14μm, 12μm, <50mK) | |
| Resolution / Max. Frame Rate | 640x480 / 30fps | | 320x240 / 8fps | |
| Min. Illumination | - | | - | |
| Video Out | USB: Micro USB Type B, 1280x720 for installation | | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | |
| Focal Length (Zoom Ratio) | 9.1mm fixed focal | | 4.7mm fixed focal | |
| Angular Field of View | H: 50.0° / V: 37.0° / D: 63.8° (iFoV: 1.319 mRad) | | H: 50.0° / V: 36.4° / D: 65.3° (iFoV: 2.553 mRad) | |
| Pan / Tilt / Rotate | -170°~+170° / -40°~50° / - | | - | |
| IR Viewable Length | - | | - | |
| Day & Night | - | | Auto(ICR) | |
| Wide Dynamic Range | - | | WDR(120dB) | |
| Digital Noise Reduction | - | | SSNR V, WiseNR II | |
| 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(Appear/Disappear) * Some of the video analytics only works with people and vehicle detection | |
| Business Intelligence | - | | - | |
| Alarm I/O | 4 configurable I/O ports | | Input 1 ea / Output 2 ea | |
| 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/Baseline/High, MJPEG | |
| WiseStream | WiseStream II | | 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 2slots 512GB | | Micro SD/SDHC/SDXC 1slot 256GB | |
| Application Programming Interface | ONVIF Profile S/T SUNAPI(HTTP API) Hanwha Vision Open Platform (visible channel only) | | ONVIF Profile S/T/M SUNAPI(HTTP API) | |
| Operating Temperature / Humidity | -40°C to +60°C (-58°F to +140°F) * Start up should be done at above -30°C 0~95% RH(non-condensing) | | -10°C~+55°C(+14°F~+131°F) / Less than 95% RH | |
| Certification | IP66/IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9) | | - | |
| Power Consumption | PoE+: Max 25.5W, Typ 16.0W / 12VDC: Max 21.5W, Typ 14.0W | | PoE+: Max. 17.0W, typical 12.5W / 12VDC: Max. 14.5W, typical 11.0W | |
| Product Dimensions / Weight | 353.4(W)x287.5(H)x191.2(D)mm(13.92x11.32x7.53"), 4.53kg(9.99lb) | | 135(W)x75(H)x188.5(D)mm, (5.31x2.95x7.42"), 1.7kg(3.77lb) | |



NEW

TNM-C3620TDR

Radiometric Bi-spectrum AI Thermal Camera



TNB-9000

8K Box Camera



TNV-C7013RC

AI Corner Mount Camera



NEW

TNV-C8011RW

AI Wall Mount Camera

| Imaging Device | Thermal | Visible | 43.3mm Full-frame CMOS | 1/1.8" progressive CMOS | 1/2.8" progressive 5MP CMOS |
|-----------------------------------|--|--|--|--|---|
| | Uncooled micro bolometer (Spectral range: 8~14μm, 12μm, <50mK) | | | | |
| Resolution / Max. Frame Rate | 320x240 / 30fps | | 1920x1080 / 30fps | | 5MP / 30fps |
| Min. Illumination | - | | Colour: 0.05Lux(F1.6, 1/30sec) B/W: 0.005Lux(F1.6, 1/30sec) | Colour: 0.015Lux(F1.4) BW: 0.0015Lux(F1.4) | Colour: 0.038Lux(F1.6, 1/30sec, 30IRE) BW: 0.0038Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on) |
| Video Out | CVBS: 1.0Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | | HDMI | | - |
| Focal Length (Zoom Ratio) | 4.7mm fixed focal | | 4mm fixed focal | | 2.39mm fixed focal |
| Angular Field of View | H: 50.0° / V: 36.4° / D: 65.3° (iFoV: 2.553 mRad) | | H: 87.6° / V: 46.4° / D: 104.5° | | H: 128° / V: 100° |
| IR Viewable Length | - | | - | | Wise IR 15m (49.21ft), invisible 940mm wavelength |
| Day & Night | - | | Auto (ICR) | | Auto (ICR) |
| Wide Dynamic Range | - | | extremeWDR (150dB) | | extremeWDR (120dB) |
| Digital Noise Reduction | - | | SSNR V | | SSNR V, WiseNR II (Based on AI engine) |
| Digital Image Stabilization | - | | Support (built-in gyro sensor) | | Support |
| Analytics | Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature detection | Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection AI based Object detection (person/face, visible channel only) | Intelligent analytics, Audio detection, Sound classification | Classified object type : Person/Face/Vehicle/License plate Support DetectionShot Analytics events based on AI engine : Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Analytics events : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area (Appear/Disappear), Clothes colour detection (Orange/Black/Red, @400lux) | 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 (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 | | 1 / 1 | | 2 configurable I/O ports * Support Alarm via optional SPM-4210 I/O box |
| Audio I/O | Selectable (mic in/line in) / Line out | | Selectable (mic in/line in) / Line out | | Selectable (mic in/line in) / Line out |
| Video Compression | H.265/H.264: Main/Baseline/High, MJPEG | | H.265, H.264, MJPEG | | H.265/H.264, MJPEG |
| WiseStream | WiseStream II | Manual (Sea area), WiseStream II | WiseStream II | Manual (Sea area), WiseStream II, WiseStream III (Based on AI engine) | Manual (Sea area), WiseStream III (Based on AI engine) |
| Streaming | Unicast (20 users) / Multicast Multiple streaming (Up to 6 profiles) | | Up to 3 Profiles | | Up to 10 profiles, 3 virtual channel support |
| Edge Storage | Micro SD/SDHC/SDXC 1 slot 256GB | | micro SD/SDHC/SDXC | | Micro SD/SDHC/SDXC 1 slot 1TB |
| Application Programming Interface | ONVIF Profile S/T/M SUNAPI (HTTP API) | | ONVIF Profile S/G/T SUNAPI | | ONVIF Profile S/T, SUNAPI (HTTP API) Hanuha Vision Open Platform |
| Operating Temperature / Humidity | -10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH | | 0°C ~ +45°C (32°F ~ +122°F) | | -10°C ~ +55°C (14°F ~ +131°F) 0~95% RH (non-condensing) Humidity control with AIR vent |
| Certification | - | | EMC | | IP66, IP6K9K, IK10+ |
| Power Consumption | PoE+: Max. 17.0W, typical 12.5W 12VDC: Max. 14.5W, typical 11.0W | | PoE: Max 30W, typical 20W 12VDC: Max 26W, typical 18W | | PoE: Max 12.95W, typical 9.7W DC: Max 12.7W, typical 9.0W |
| Product Dimensions / Weight | 135(W)x75(H)x188.5(D)mm, (5.31x2.95x7.42"), 1.7kg(3.77lb) | | 120x118.5x179mm, 2.2kg (4.85 lb) | | 198.3(W)x104.8(H)x198.6(D)mm (7.87"x4.13"x7.82"), 1.935kg (4.27lb) |
| | | | | | 80(W)x167(H)x57(D)mm(3.15x6.56x2.24"), 600g(1.32lb) |



PNO-A9311RLP
8MP 31x Zoom LPR/ANPR/MMCR
IR Bullet Camera



PNO-A9081RLP
8MP AI LPR IR Bullet Camera



PNV-A9081RLP
8MP AI LPR IR Vandal Dome Camera



PNB-A9001LP
8MP AI LPR Box Camera



TNO-7180RLP
3MP AI LPR Box Camera

| | PNO-A9311RLP 8MP 31x Zoom LPR/ANPR/MMCR IR Bullet Camera | PNO-A9081RLP 8MP AI LPR IR Bullet Camera | PNV-A9081RLP 8MP AI LPR IR Vandal Dome Camera | PNB-A9001LP 8MP AI LPR Box Camera | TNO-7180RLP 3MP AI LPR Box Camera |
|--------------------------------------|--|--|--|--|--|
| Imaging Device | 1/1.8" CMOS | 1/1.8" CMOS | 1/1.8" CMOS | 1/1.8" CMOS | 1/1.8" CMOS, Global Shutter |
| Resolution / Max. Frame Rate | 4K / 30fps | 8MP / 30fps | 8MP / 30fps | 8MP / 30fps | 3MP / 55fps |
| Min. Illumination | Colour: 0.075Lux(F1.36, 1/30sec, 30IRE) BW: 0.0075Lux(F1.36, 1/30sec, 30IRE), 0Lux(IR LED on) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED on) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on) | Colour: 0.03Lux(F1.2, 1/30sec) B/W: 0.003Lux(F1.2, 1/30sec) | Colour 0.1 Lux (1/30sec, gain 48dB) |
| Video Out | CVBS: 1.0 Vp-p, Micro USB Type B | CVBS: 1.0 Vp-p, Micro USB Type B | CVBS: 1.0 Vp-p, Micro USB Type B | CVBS: 1.0 Vp-p, Micro USB Type B | CVBS: 1.0 Vp-p, Micro USB Type B |
| Focal Length (Zoom Ratio) | 6.91~214.7mm (31x) motorized varifocal | 4.5~10mm(2.2x) motorized varifocal | 4.5~10mm (2.2x) motorized varifocal | - | 6.8~120mm(18x) motorized varifocal |
| Angular Field of View | H: 60.92°(Wide)~2.2°(Tele) V: 35.26°(Wide)~1.24°(Tele) D: 69.18°(Wide)~2.52°(Tele) | H: 101.4°(Wide)~45.5°(Tele) V: 53.6°(Wide)~25.5°(Tele) D: 120.7°(Wide)~52.3°(Tele) | H: 101.4°(Wide)~45.5°(Tele) V: 53.6°(Wide)~25.5°(Tele) D: 120.7°(Wide)~52.3°(Tele) | - | H: 54.5° (Wide)~3.4° (Tele) V: 42.3° (Wide)~2.5° (Tele) |
| Pan / Tilt / Rotate | - | - | 0°~360° / -45°~85° / 0°~355° | - | - |
| IR Viewable Length | WiseIR 70m(229.66ft) | 30m(98.42ft) | 30m(98.42ft) | - | WiseIR 50m (164ft) |
| Day & Night | Auto(ICR) | Auto(ICR) | Auto(ICR) | Auto(ICR) | Auto (ICR) |
| Wide Dynamic Range | 120dB | - | - | - | - |
| Digital Noise Reduction | SSNR V | SSNR V | SSNR V | SSNR V | SSNR V |
| Digital Image Stabilization | Support (built-in gyro sensor) | Support (built-in gyro sensor) | - | - | - |
| Analytics | - | Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection | Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection | Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection | Motion detection, Tampering, Virtual line(Crossing/Direction), Virtual Area(Loitering/Intrusion/Enter/Exit, Appear/Disappear) |
| Business Intelligence | - | - | - | - | - |
| Alarm I/O | 2 configurable I/O ports, DC 12V output (Max. 50mA) | 1/1 | 1/1 | 1/1 | 4 configurable I/O ports |
| Audio I/O | Selectable(mic in/line in) / Line out | Selectable (mic in/line in/built-in mic) / Line out | Selectable(mic in/line in/built-in mic) / Line out | Selectable(mic in/line in/built-in mic) / Line out | Selectable(mic in/line in) / Line out |
| Video Compression | H.265/H.264: Main/High, MJPEG | H.265 / H.264, MJPEG | H.265/H.264, MJPEG | H.265/H.264: Main/High, MJPEG | H.265 / H.264, MJPEG |
| WiseStream | Manual(5ea area), WiseStream II | WiseStream II | WiseStream II | WiseStream II | WiseStream II |
| Streaming | Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) | Up to 3 profiles | Up to 3 profiles | Up to 3 profiles | Up to 10 Profiles |
| Edge Storage | Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) | Pre-installed with 32GB Micro SD to support 10,000 LPR images | Pre-installed with 32GB Micro SD to support 10,000 LPR images | Pre-installed with 32GB Micro SD to support 10,000 LPR images | Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled) |
| Application Programming Interface | ONVIF Profile S/G/T/M SUNAPI(HTTP API) | ONVIF Profile S/T, SUNAPI(HTTP API) Hanwha Vision Open Platform | ONVIF Profile S/G/T SUNAPI(HTTP API) Hanwha Vision Open Platform | 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 ~ +55°C(-40°F ~ +131°C) / Less than 90% RH * Start up should be done at above -30°C | -40°C ~ +55°C(-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C | -40°C ~ +55°C(-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C | -10°C ~ +55°C(+14°F ~ +131°F) / Less than 90% RH | -40°C ~ +55°C(-40°F ~ +131°F) / Less than 95% RH(Noncondensing) |
| Certification | IP66/IP67, IK10, NEMA4X | IP66/IP67, IK10, NEMA4X | IP66/IP67/IP6K9K, IK10+, NEMA4X | - | IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9) |
| Power Consumption | PoE+: Max 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 | PoE+: Max 20.00W, typical 17.00W 12VDC: Max 18.70W, typical 15.00W | PoE+: Max 16.50W, typical 12.50W 12VDC: Max 13.50W, typical 10.80W | PoE: Max 50W, Typical 27W 12VDC: Max 47.5W, Typical 25W |
| Product Dimensions / Weight | Ø 136.2x358.7mm (Ø 5.36x14.12") (Without sunshield), 3200g(7.05lb) * backbox: Ø 160mm(Ø 6.30") | Ø 91.0x368.6mm (3.58" x 14.51") (Without sunshield), 2.48Kg (5.47lb) | Ø 180x125mm(7.09x4.92"), 1.90Kg (4.19lb) | 81x67x165mm(3.19x2.64x6.48"), 0.88kg(1.94lb) | 186.9(W) x259.3(H) x 293.7(D) (mm) / 4.8kg (10.5 lb) |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION

RoadWatch ANPR Camera



XNO-6080R/RW
2MP IR Bullet Camera



XNO-6120R/RW
2MP IR Bullet Camera



XNO-6123R/RW
2MP IR Bullet Camera



XNO-C6083R/RW
2MP IR Bullet Camera



XNV-6080R/RW
2MP IR Vandal Dome Camera



XNV-C6083R/RW
2MP IR Vandal Dome Camera

| | | | | | | |
|------------------------------|--|--|--|--|--|--|
| Imaging Device | 1/2.8" 2MP CMOS | 1/2.8" 2MP CMOS | 1/2.8" progressive CMOS | 1/2.8" progressive CMOS | 1/2.8" 2MP CMOS | 1/2.8" progressive CMOS |
| Resolution / Max. Frame Rate | 2MP / 60fps | 2MP / 60fps | 2MP / 120fps | 2MP / 60fps | 2MP / 60fps | 2MP / 60fps |
| Min. Illumination | Colour: 0.015 lux(F1.4, 1./30sec) / B/W: 0 Lux (IR LED On) | Colour: 0.03Lux(F1.6, 1/30sec) / BW: 0Lux(IR LED On) | Colour: 0.03 Lux (F1.6, 1/30sec, 30IRE), 0Lux (IR LED on) | Colour: 0.011 Lux (F1.4, 1/30sec, 30IRE), 0 Lux (IR LED on) | Colour: 0.015 lux(F1.4, 1./30sec), B/W: 0 Lux (IR LED On) | Colour: 0.011 Lux (F1.4, 1/30sec, 30IRE), 0 Lux (IR LED on) |
| Video Output | CVBS: 1.0 Vp-p, Micro USB Type B | | | | | |
| Focal Length | 2.8~12mm(4.3x) motorized varifocal | 5.2~62.4mm (Optical 12X) motorized varifocal | 5.2~62.4mm(12x) zoom (digital 32x, total 384x zoom) | 2.8~12mm(4.3x) motorized varifocal | 2.8~12mm (4.3x) motorized varifocal lens | 2.8~12mm (4.3x) motorized varifocal |
| Angular Field of View | H: 119.5° (Wide)~27.9° (Tele), V: 62.8° (Wide)~15.7° (Tele), T: 142.1° (Wide)~32.0° (Tele) | H: 54.58° (Wide)~5.30° (Tele) / V: 32.19° (Wide)~3.00° (Tele) / D: 61.4(Wide)~6.06(Tele) | H: 55° (Wide)~5° (Tele) / V: 33° (Wide)~3° (Tele) / D: 62° (Wide)~6° (Tele) | H: 120° (Wide)~27° (Tele) / V: 63° (Wide)~15° (Tele) / D: 143° (Wide)~32° (Tele) | H: 119.5° (Wide)~27.9° (Tele), V: 62.8° (Wide)~15.7° (Tele), T: 142.1° (Wide)~32.0° (Tele) | H: 120° (Wide)~27° (Tele) / V: 63° (Wide)~15° (Tele) / D: 143° (Wide)~32° (Tele) |
| IR Viewable Length | 50m(164.04ft) | 70m(229.66ft) | 90m(295.28ft) | 40m(131.23ft) | 50m(164.04ft) | 40m(131.23ft) |
| Day & Night | Auto(ICR) | | | | | |
| Wide Dynamic Range | 150dB | | | | | |
| Digital Noise Reduction | SSNRV | SSNRV | WiseNR II (Based on AI engine), SSNRV | WiseNR II (Based on AI engine), SSNRV | SSNRV | WiseNR II (Based on AI engine), SSNRV |
| Digital Image Stabilization | Support (built-in gyro sensor) | Support | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support | Support(built-in gyro sensor) |
| Streaming | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) | | | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles, 3 virtual channel support) | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles, 3 virtual channel support) |
| Edge Storage | Pre-installed SD Card (Data storage for RoadWatch application) | | | | | |
| Operating Temperature | -40° C~+55° C(-40° F~+131° F) / Less than 90% RH | -40° C~+55° C(-40° F~+131° F) / Less than 90% RH * Start up should be done at above -35° C | -40° C~+60° C(-40° F~+140° F) * Start up should be done at above -30° C | -40° C~+55° C(-40° F~+131° F) * Start up should be done at above -20° C | -40° C~+55° C(-40° F~+131° F) / Less than 90% RH | -40° C~+55° C(-40° F~+131° F) * Start up should be done at above -20° C |
| Certification | IP67/IP66/NEMA 4X, IK10 | | | | | |
| Power Consumption | PoE: Max 12.95W, 12VDC: Max 12W, 24VAC: Max 15W | PoE: Max 12.95W, 12VDC: Max. 12.5W, 24VAC: Max. 14.5W | PoE+: Max 19.5W, typical 15.5W; 12VDC: Max 16.5W, typical 13.1W; Power redundancy failover | PoE: Max 12.95W, typical 10.8W; 12VDC: Max 12.5W, typical 10.0W | PoE: Max 12.95W, 12VDC: Max 11.5W, 24VAC: Max 14W | PoE: Max 12.95W, typical 10.8W; 12VDC: Max 12.5W, typical 10.0W |
| RoadWatch | | | | | | |
| Solution | Moderate speed | | | Urban traffic | | Moderate speed |
| Speed Description | Regular speed | | | | | |
| Lane Coverage | | | | 1 lane (3.6m/12ft wide) | | |
| Speed limit | up to 50km/h (30mph) | | up to 90km/h (55mph) | | up to 50km/h (30mph) | |
| Min. Forward Distance | 7m (23ft) | | 17m (55ft) | | 7m (23ft) | |
| Max. Forward Distance | 13m (42ft) | | 32m (105ft) | | 13m (42ft) | |
| Max. Horizontal Angle | | | | 30° | | |
| Max Vertical Angle | | | | 30° | | |
| Horizontal Offset | up to 4m (13ft) | | up to 9.8m (32ft) | | up to 4m (13ft) | |
| Camera Height | up to 4m (13ft) | | up to 9.8m (32ft) | | up to 4m (13ft) | |



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



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

| | SolidEDGE AI Camera | |
|-----------------------------------|---|--|
| Imaging Device | 1/2" CMOS | 1/2" CMOS |
| Resolution / Max. Frame Rate | 2MP/120fps | 2MP/120fps |
| Min. Illumination | Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) BW: 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps | Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) BW: 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps |
| Video Out | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation |
| Focal Length (Zoom Ratio) | 4.38~9.33mm(2.13x) motorized varifocal | 4.38~9.33mm(2.13x) motorized varifocal |
| Angular Field of View | H: 104°(Wide)~44°(Tele) V: 55°(Wide)~24°(Tele) D: 124°(Wide)~51°(Tele) | H: 104°(Wide)~44°(Tele) V: 55°(Wide)~24°(Tele) D: 124°(Wide)~51°(Tele) |
| Pan / Tilt / Rotate Range | 0°~360° / 0°~85° / 0°~355° | 0°~360° / 0°~85° / 0°~355° |
| IR Viewable Length | 40m(131.23ft) | 40m(131.23ft) |
| Day & Night | Auto(ICR) | Auto(ICR) |
| Wide Dynamic Range | 120dB | 120dB |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V | WiseNR II (Based on AI engine), SSNR V |
| Digital Image Stabilization | - | - |
| Analytics | <p>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 Analytics events - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) *Some of the video analytics only works with people and vehicle detection</p> | |
| Business Intelligence | - | - |
| Alarm I/O | Input 1ea / Output 1ea | Input 1ea / Output 1ea |
| Audio I/O | Selectable(mic in/line in) / Line out | Selectable(mic in/line in) / Line out |
| Video Compression | H.265/H.264: Main/High, MJPEG | H.265/H.264: Main/High, MJPEG |
| WiseStream | Manual(Sea area), WiseStream III | Manual(Sea area), WiseStream III |
| Streaming | Unicast(6 users) / Multicast Multiple streaming(Up to 5 profiles) | Unicast(6 users) / Multicast Multiple streaming(Up to 5 profiles) |
| Edge Storage | 1TB SSD included(WAVE pre-installed) Possible to register the maximum number of camera - up to 6 camera(Host + 5 camera) - Total bandwidth: up to 33Mbps * Cannot support the camera when host camera use AI mode | 2TB SSD included(WAVE pre-installed) Possible to register the maximum number of camera - up to 6 camera(Host + 5 camera) - Total bandwidth: up to 33Mbps * Cannot support the camera when host camera use AI mode |
| Application Programming Interface | ONVIF Profile S/T/M, SUNAPI(HTTP API) | ONVIF Profile S/T/M, SUNAPI(HTTP API) |
| Operating Temperature / Humidity | -30°C~+55°C(-22°F~+131°F) / 0~95%RH(non-condensing) * Start up should be done at above -20°C Humidity control with AIR Vent | |
| Certification | IP66/IP67/IP6K9K, NEMA4X, IK10 | IP66/IP67/IP6K9K, NEMA4X, IK10 |
| Power Consumption | PoE+: Max 19.2W, typical 14.4W / 12VDC: Max 17.5W, typical 12.7W Power redundancy failover | PoE+: Max 19.2W, typical 14.4W / 12VDC: Max 17.5W, typical 12.7W Power redundancy failover |
| Product Dimensions / Weight | ø 180x130mm(ø 7.09x5.12"), 1900g(4.19 lb) | ø 180x130mm(ø 7.09x5.12"), 1900g(4.19 lb) |



XNO-9082R
8MP IR Bullet Camera



XNV-9082R
8MP IR Vandal Dome Camera



XND-9082RF
8MP IR Dome Camera



XND-9082RV
8MP IR Dome Camera



XNB-9002
8MP Box Camera

| | | | | | |
|-----------------------------------|--|--|---|---|--|
| Imaging Device | 1/2.8" CMOS | | | | |
| Resolution / Max. Frame Rate | 4K / 30fps | | | | |
| Min. Illumination | Colour: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE), 0Lux(IR LED on) | | | | Colour: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE) |
| Video Out | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | | | | |
| Focal Length (Zoom Ratio) | 2.8~8.4mm(3x) motorized varifocal | 2.8~8.4mm(3x) motorized varifocal | 2.8~8.4mm(3x) motorized varifocal | 2.8~8.4mm(3x) motorized varifocal | - |
| Angular Field of View | H: 114°(Wide)~40°(Tele) V: 62°(Wide)~22°(Tele) D: 133°(Wide)~46°(Tele) | H: 114°(Wide)~40°(Tele) V: 62°(Wide)~22°(Tele) D: 133°(Wide)~46°(Tele) | H: 114°(Wide)~40°(Tele) V: 62°(Wide)~22°(Tele) D: 133°(Wide)~46°(Tele) | 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°~85°/0°~355° | 0°~360°/0°~85°/0°~355° | - |
| IR Viewable Length | WiseIR 40m(131.23ft) | WiseIR 40m(131.23ft) | WiseIR 40m(131.23ft) | WiseIR 40m(131.23ft) | - |
| Day & Night | Auto(ICR) | Auto(ICR) | Auto(ICR) | Auto(ICR) | Auto(ICR) |
| Wide Dynamic Range | extremeWDR(120dB) | extremeWDR(120dB) | extremeWDR(120dB) | extremeWDR(120dB) | extremeWDR(120dB) |
| Digital Noise Reduction | SSNR V | SSNR V | SSNR V | SSNR V | SSNR V |
| Digital Image Stabilization | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) |
| Analytics | Analytics events - Defocus detection, Directional detection, Motion detection, Digital auto tracking, Appear/Disappear, Enter/Exit, Loitering, Tampering, Fog detection, Virtual line, Audio detection, Sound classification, Shock detection, Face/upper body detection | | | | |
| Business Intelligence | People counting, Queue management, Heatmap | | | | |
| Alarm I/O | 2 configurable I/O ports | 2 configurable I/O ports | 2 configurable I/O ports | 2 configurable I/O ports | 2 configurable I/O ports |
| Audio I/O | Selectable(mic in/line in) / Line out | Selectable(mic in/line in) / Line out | Selectable(mic in/line in) / Line out | Selectable(mic in/line in/built-in mic) / Line out | Selectable(mic in/line in/built-in mic) / Line out |
| Video Compression | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG |
| WiseStream | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II |
| Streaming | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles, 3 virtual channel support) | | | | |
| Edge Storage | Micro SD/SDHC/SDXC 2slot Max. 1TB(512GBx2) | | | | |
| Application Programming Interface | ONVIF Profile S/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 | -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) | -10°C~+55°C(+14°F~+131°F) / 0~95% RH(non-condensing) |
| Certification | IP66/IP67, NEMA4X, IK10 | IP66/IP67/IP6K9K, IK10+, NEMA4X | IP52, Plenum rated, IK10 | IP52, IK10 | - |
| Power Consumption | PoE: Max 12.95W, typical 10.5W 12VDC: Max 12.5W, typical 9.4W 24VAC: Max 14.5W, typical 11.2W Power redundancy failover | PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W 24VAC: Max 13.5W, typical 11.0W Power redundancy failover | PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W Power redundancy failover | PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W Power redundancy failover | PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W Power redundancy failover |
| Product Dimensions / Weight | φ91x368.6mm(φ3.85x14.51"), 2200g(4.85 lb) | φ180x125mm(φ7.09x4.92"), 1900g(4.19 lb) | φ205x163mm(φ8.07x6.42"), 1950g(4.29 lb) | φ160x125mm(φ6.30x4.92"), 1600g(3.53 lb) | 81(W)x67(H)x165(D)mm(3.19x2.64x6.48"), 880g(1.94 lb) |
| Additional Features | UL CAP, Secure by Default | | | | |



XNO-8082R
6MP IR Bullet Camera



XNV-8082R
6MP IR Vandal Dome Camera



XND-8082RF
6MP IR Dome Camera



XND-8082RV
6MP IR Dome Camera



XNB-8002
6MP Box Camera

| | | | | | |
|-----------------------------------|--|--|---|---|--|
| Imaging Device | 1/2.8" CMOS | | | | |
| Resolution / Max. Frame Rate | 6MP / 30fps | | | | |
| Min. Illumination | Colour: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE), 0Lux(IR LED on) | | | | Colour: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE) |
| Video Out | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | | | | |
| Focal Length (Zoom Ratio) | 2.8~8.4mm(3x) motorized varifocal | 2.8~8.4mm(3x) motorized varifocal | 2.8~8.4mm(3x) motorized varifocal | 2.8~8.4mm(3x) motorized varifocal | - |
| Angular Field of View | H: 114°(Wide)~40°(Tele) V: 62°(Wide)~22°(Tele) D: 133°(Wide)~46°(Tele) | H: 114°(Wide)~40°(Tele) V: 62°(Wide)~22°(Tele) D: 133°(Wide)~46°(Tele) | H: 114°(Wide)~40°(Tele) V: 62°(Wide)~22°(Tele) D: 133°(Wide)~46°(Tele) | 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°~85° / 0°~355° | 0°~360° / 0°~85° / 0°~355° | - |
| IR Viewable Length | WiseIR 40m(131.23ft) | WiseIR 40m(131.23ft) | WiseIR 40m(131.23ft) | WiseIR 40m(131.23ft) | - |
| Day & Night | Auto(ICR) | Auto(ICR) | Auto(ICR) | Auto(ICR) | Auto(ICR) |
| Wide Dynamic Range | extremeWDR(120dB) | extremeWDR(120dB) | extremeWDR(120dB) | extremeWDR(120dB) | extremeWDR(120dB) |
| Digital Noise Reduction | SSNR V | SSNR V | SSNR V | SSNR V | SSNR V |
| Digital Image Stabilization | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) |
| Analytics | Analytics events - Defocus detection, Directional detection, Motion detection, Digital auto tracking, Appear/Disappear, Enter/Exit, Loitering, Tampering, Fog detection, Virtual line, Audio detection, Sound classification, Shock detection, Face/upper body detection | | | | |
| Business Intelligence | People counting, Queue management, Heatmap | | | | |
| Alarm I/O | 2 configurable I/O ports | 2 configurable I/O ports | 2 configurable I/O ports | 2 configurable I/O ports | 2 configurable I/O ports |
| Audio I/O | Selectable(mic in/line in) / Line out | Selectable(mic in/line in) / Line out | Selectable(mic in/line in) / Line out | Selectable(mic in/line in/built-in mic) / Line out | Selectable(mic in/line in/built-in mic) / Line out |
| Video Compression | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG |
| WiseStream | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II |
| Streaming | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles, 3 virtual channel support) | | | | |
| Edge Storage | Micro SD/SDHC/SDXC 2slot Max. 1TB(512GBx2) | | | | |
| Application Programming Interface | ONVIF Profile S/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 | -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) | -10°C~+55°C(+14°F~+131°F) / 0~95% RH(non-condensing) |
| Certification | IP66/IP67, NEMA4X, IK10 | IP66/IP67/IP6K9K, IK10+, NEMA4X | IP52, Plenum rated, IK10 | IP52, IK10 | - |
| Power Consumption | PoE: Max 12.95W, typical 10.5W 12VDC: Max 12.5W, typical 9.4W 24VAC: Max 14.5W, typical 11.2W Power redundancy failover | PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W 24VAC: Max 13.5W, typical 11.0W Power redundancy failover | PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W Power redundancy failover | PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W Power redundancy failover | PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W Power redundancy failover |
| Product Dimensions / Weight | φ91x368.6mm(φ3.85x14.51"), 2200g(4.85 lb) | φ180x125mm(φ7.09x4.92"), 1900g(4.19 lb) | φ205x163mm(φ8.07x6.42"), 1950g(4.29 lb) | φ160x125mm(φ6.30x4.92"), 1600g(3.53 lb) | 81(W)x67(H)x165(D)mm(3.19x2.64x6.48"), 880g(1.94 lb) |
| Additional Features | UL CAP, Secure by Default | | | | |



XND-8081VZ
SMP Dome Camera



XND-8081FZ
SMP Flush Mount Dome Camera



XND-8081RV
SMP IR Dome Camera



XND-8081RF
SMP IR Flush Mount Dome Camera



XNV-8081Z
SMP Vandal Dome Camera

| | | | | | |
|-----------------------------------|---|---|--|--|---|
| Imaging Device | 1/1.8" CMOS | | | | |
| Resolution / Max. Frame Rate | 5MP / 30fps | | | | |
| Min. Illumination | Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2) | Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2) | Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on) | Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on) | Colour : 0.07 Lux (F1.2) B/W : 0.007 Lux (F1.2) |
| Video Out | Micro USB Type B | Micro USB Type B | CVBS 1.0 Vp-p, Micro USB Type B | CVBS 1.0 Vp-p, Micro USB Type B | Micro USB Type B |
| Focal Length (Zoom Ratio) | 3.6 ~ 9.4mm (2.6x) motorized varifocal | 3.6 ~ 9.4mm (2.6x) motorized varifocal | 3.9 ~ 9.4mm (2.4x) motorized varifocal | 3.9 ~ 9.4mm (2.4x) motorized varifocal | 3.6 ~ 9.4mm (2.6x) motorized varifocal |
| Angular Field of View | H : 102.5° (Wide) ~ 38.7° (Tele) V : 74.2° (Wide) ~ 29° (Tele) D : 135.5° (Wide) ~ 48.6° (Tele) | H : 102.5° (Wide) ~ 38.7° (Tele) V : 74.2° (Wide) ~ 29° (Tele) D : 135.5° (Wide) ~ 48.6° (Tele) | H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele) | H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele) | H : 102.5° (Wide) ~ 38.7° (Tele) V : 74.2° (Wide) ~ 29° (Tele) D : 135.5° (Wide) ~ 48.6° (Tele) |
| Pan / Tilt / Rotate Range | ± 175° / 0 ~ 85° / ± 175° (Remote) | ± 175° / 0 ~ 85° / ± 175° (Remote) | 0° ~ 360° / -45° ~ 85° / 0° ~ 355° | 0° ~ 360° / -45° ~ 85° / 0° ~ 355° | ± 175° / 0 ~ 85° / ± 175° (Remote) |
| IR Viewable Length | - | - | 50m (164.04ft) | 50m (164.04ft) | - |
| Day & Night | Auto (ICR) | | | | |
| Wide Dynamic Range | 120dB | | | | |
| Digital Noise Reduction | SSNR V | | | | |
| Digital Image Stabilization | Support (Built-in Gyro sensor) | | | | |
| Analytics | Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection | | | | |
| Business Intelligence | - | | | | |
| Alarm I/O | 1 / 1 | | | | |
| Audio I/O | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | | |
| WiseStream | WiseStream II | | | | |
| Streaming | Up to 10 Profiles | | | | |
| Edge Storage | micro SD/SDHC/SDXC | | | | |
| Application Programming Interface | ONVIF Profile S/T, SUNAPI Hanwha Vision Open Platform | | | | |
| Operating Temperature / Humidity | -25°C ~ +60°C (-13°F ~ +140°F) | -25°C ~ +60°C (-13°F ~ +140°F) | -25°C ~ +60°C (-13°F ~ +140°F) / 0~90% RH | -25°C ~ +60°C (-13°F ~ +140°F) | -50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F) |
| Certification | IP52, IK10 | IP52, Plenum rate | IP52, IK10 | IP52, Plenum rate | IP67, IP66, IP6K9K, IK10+, NEMA4X |
| Power Consumption | PoE : Max 11W 12VDC : Max 9W | PoE : Max 11W 12VDC : Max 9W | PoE : Max 12.95W 12VDC : Max 11.7W | PoE : Max 12.95W 12VDC : Max 11.7W | PoE : Max 12.3W 12VDC : Max 10W 24VAC : Max 12.3W |
| Product Dimensions / Weight | Ø 160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.20lb) | Ø 205 x 155mm (Ø8.07" x 6.1") 1.85kg (4.08lb) | Ø 160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.20lb) | Ø 205 x 155mm (Ø8.07" x 6.1") 1.8kg (3.97lb) | Ø 180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb) |
| Additional Features | Modular structure, Motorized PTRZ, Anti dust | Modular structure, Motorized PTRZ, Anti dust | Modular structure, Anti dust | Modular structure, Anti dust | Modular structure, Motorized PTRZ |



XNV-8081R
5MP IR Vandal Dome Camera



XND-6081V
2MP Dome Camera



XND-6081VZ
2MP Dome Camera

| | | | |
|-----------------------------------|--|--|--|
| Imaging Device | 1/1.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 5MP / 30fps | 2MP / 60fps | 2MP / 60fps |
| Min. Illumination | Colour: 0.07Lux (F1.3) BW: 0Lux (IR LED) | Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4) | Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4) |
| Video Out | CVBS 1.0 Vp-p, Micro USB type B | CVBS 1.0Vp-p, Micro USB type B | Micro USB type B |
| Focal Length (Zoom Ratio) | 3.9 ~ 9.4mm (2.4x) motorized varifocal | 2.8 ~ 12mm (4.3x) motorized varifocal | 2.8 ~ 12mm (4.3x) motorized varifocal |
| Angular Field of View | H: 92.1°(Wide) ~ 38.7°(Tele) V: 67.2°(Wide) ~ 29°(Tele) D: 119.9°(Wide) ~ 48.6°(Tele) | H: 119.5°(Wide) ~ 27.9°(Tele) V: 62.8°(Wide) ~ 15.7°(Tele) D: 142.1°(Wide) ~ 32°(Tele) | H: 119.5°(Wide) ~ 27.9°(Tele) V: 62.8°(Wide) ~ 15.7°(Tele) D: 142.1°(Wide) ~ 32°(Tele) |
| Pan / Tilt / Rotate Range | 0° ~ 360° / -45° ~ 85° / 0° ~ 355° | 0° ~ 360° / -45° ~ 85° / 0° ~ 355° | ± 175° / 0 ~ 85° / ± 175° (Remote) |
| IR Viewable Length | 50m (164.04ft) | - | - |
| Day & Night | Auto (ICR) | | |
| Wide Dynamic Range | 120dB | 150dB | 150dB |
| Digital Noise Reduction | SSNR V | | |
| Digital Image Stabilization | Support (Built-in Gyro sensor) | Support (Built-in Gyro sensor) | Support (Built-in Gyro sensor) |
| Analytics | Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection | | |
| Business Intelligence | - | | |
| Alarm I/O | 1 / 1 | | |
| Audio I/O | Selectable (mic in/line in) / Line out | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in), Built-in mic / Line out |
| Video Compression | H.265 / H.264, MJPEG | | |
| WiseStream | WiseStream II | | |
| Streaming | Up to 10 Profiles | | |
| Edge Storage | micro SD/SDHC/SDXC | | |
| Application Programming Interface | ONVIF Profile S/T, SUNAPI Hanwha Vision Open Platform | | |
| Operating Temperature / Humidity | -50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F) | -25°C ~ +60°C (-13°F ~ +140°F) | -25°C ~ +60°C (-13°F ~ +140°F) |
| Certification | IP67, IP66, IP6K9K, IK10+, NEMA4X | IP52, IK10 | IP52, IK10 |
| Power Consumption | PoE: Max 12.95W 12VDC: Max 11.7W 24VAC: Max 14.9W | PoE: Max 7W 12VDC: Max 5.4W | PoE: Max 10W 12VDC: Max 8.5W |
| Product Dimensions / Weight | Ø 180 x 125mm (Ø 7.1" x 4.9") 1.75kg (3.86lb) | Ø 160 x 125mm (Ø 6.3" x 4.92") 1.45kg (3.2lb) | Ø 160 x 125mm (Ø 6.3" x 4.92") 1.45kg (3.2lb) |
| Additional Features | Modular structure | Modular structure, Antidust | Modular structure, Motorized PTRZ, Anti dust |



XND-6081RV
2MP IR Dome Camera



XND-6081RF
2MP Flush Mount IR Dome Camera



XNV-6081Z
2MP Vandal Dome Camera



XNV-6081R
2MP IR Vandal Dome Camera

| | | | |
|-----------------------------------|--|--|---|
| Imaging Device | 1/2.8" CMOS | | |
| Resolution / Max. Frame Rate | 2MP / 60fps | | |
| Min. Illumination | Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on) | Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on) | Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | CVBS 1.0Vp-p, Micro USB type B | Micro USB type B |
| Focal Length (Zoom Ratio) | 2.8 ~ 12mm (4.3x) motorized varifocal | | |
| Angular Field of View | H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele) | | |
| Pan / Tilt / Rotate Range | 0° ~ 360° / -45° ~ 85° / 0° ~ 355° | 0° ~ 360° / -45° ~ 85° / 0° ~ 355 | ± 175° / 0° ~ 85° / ± 175° (Remote) |
| IR Viewable Length | 50m (164.04ft) | 50m (164.04ft) | - |
| Day & Night | Auto (ICR) | | |
| Wide Dynamic Range | 150dB | | |
| Digital Noise Reduction | SSNR V | | |
| Digital Image Stabilization | Support (Built-in Gyro sensor) | | |
| Analytics | Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection | | |
| Business Intelligence | - | | |
| Alarm I/O | 1 / 1 | | |
| Audio I/O | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out |
| Video Compression | H.265 / H.264, MJPEG | | |
| WiseStream | WiseStream II | | |
| Streaming | Up to 10 Profiles | | |
| Edge Storage | micro SD/SDHC/SDXC | | |
| Application Programming Interface | ONVIF Profile S/T, SUNAPI Hanwha Vision Open Platform | | |
| Operating Temperature / Humidity | -25°C ~ +60°C (-13°F ~ +140°F) | -25°C ~ +60°C (-13°F ~ +140°F) | -50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F) |
| Certification | IP52, IK10 | IP52, Plenum rate | IP67, IP66, IP6K9K, IK10+, NEMA4X |
| Power Consumption | PoE: Max 12.95W 12VDC: Max 10.8W | PoE: Max 12.95W 12VDC: Max 10.8W | PoE: Max 11W 12VDC: Max 9.5W 24VAC: Max 11W |
| Product Dimensions / Weight | Ø 160 x 125mm (Ø 6.3" x 4.92") 1.45kg (3.21lb) | Ø 205 x 155mm (Ø 8.07" x 6.1") 1.8kg (3.97lb) | Ø 180 x 125mm (Ø 7.1" x 4.9") 1.75kg (3.86lb) |
| Additional Features | Modular design, Anti dust | Modular design, Anti dust | Modular structure, Motorized PTRZ |



XNV-6081
2MP Vandal Dome Camera



XNB-8000
5MP Box Camera



XNO-8080R
5MP IR Bullet Camera



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

| | | | | |
|-----------------------------------|---|---|--|---|
| Imaging Device | 1/2.8" CMOS | 1/1.8" CMOS | 1/1.8" CMOS | 1/1.8" CMOS |
| Resolution / Max. Frame Rate | 2MP / 60fps | 5MP / 30fps | 5MP / 30fps | 5MP / 30fps |
| Min. Illumination | Colour: 0.015 Lux (F1.4) B/W: 0.0015 Lux (F1.4) | Colour: 0.07Lux (F1.2) B/W: 0.007Lux (F1.2) | Colour: 0.07Lux (F1.3) B/W: 0Lux (IR LED on) | Colour: 0.16Lux ((F1.6) B/W: 0Lux (IR LED on) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | CVBS 1.0 Vp-p, Micro USB Type B | CVBS 1.0 Vp-p, Micro USB Type B | CVBS 1.0 Vp-p, Micro USB Type B |
| Focal Length (Zoom Ratio) | 2.8 ~ 12mm (4.3x) motorized varifocal | - | 3.7 ~ 9.4mm (2.5x) motorized varifocal | 3.7mm fixed (XNO-8020R) 4.6mm fixed (XNO-8030R) 7.0mm fixed (XNO-8040R) |
| Angular Field of View | H: 119.5°(Wide) ~ 27.9°(Tele) V: 62.8°(Wide) ~ 15.7°(Tele) D: 142.1°(Wide) ~ 32°(Tele) | - | H: 100.2°(Wide) ~ 38.7°(Tele) V: 67.2°(Wide) ~ 29°(Tele) D: 119.9°(Wide) ~ 48.6°(Tele) | H: 97.5° / V: 71.9° / D: 126.2° (XNO-8020R) H: 77.9° / V: 57.9° / D: 98.7° (XNO-8030R) H: 50.7° / V: 37.8° / D: 63.8° (XNO-8040R) |
| Pan / Tilt / Rotate Range | 0° ~ 360° / -45° ~ 85° / 0° ~ 355° | - | - | - |
| IR Viewable Length | - | - | 50m (164.04ft) | 30m (98.43ft) |
| Day & Night | Auto (ICR) | | | |
| Wide Dynamic Range | 150dB | 120dB | 120dB | 120dB |
| Digital Noise Reduction | SSNR V | | | |
| Digital Image Stabilization | Support (Built-in Gyro sensor) | Support (Built-in Gyro sensor) | Support | Support |
| Analytics | Intelligent analytics Audio detection Sound classification Audio Playback Shock detection | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification |
| Business Intelligence | - | - | - | People counting, Queue management, Heatmap |
| Alarm I/O | 1 / 1 | | | |
| Audio I/O | Selectable (mic in/line in) / Line out | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out |
| Video Compression | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG |
| WiseStream | WiseStream II | | | |
| Streaming | Up to 10 Profiles | | | |
| Edge Storage | micro SD/SDHC/SDXC | | | |
| Application Programming Interface | ONVIF Profile S/T, SUNAPI Hanwha Vision Open Platform | | | |
| Operating Temperature / Humidity | -50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -40°C ~ +55°C (-40°F ~ +131°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) |
| Certification | IP67, IP66, IP6K9K, IK 10+, NEMA4X | - | IP67, IP66, NEMA4X, IK 10 | IP67, IP66, NEMA4X, IK 10 |
| Power Consumption | PoE: Max 7W 12VDC: Max 5.4W 24VAC: Max 7.1W | PoE: Max 8.5W 12VDC: Max 7.5W 24VAC: Max 8.5W | PoE: Max 12.95W 12VDC: Max 12.5W 24VAC: Max 14.5W | PoE: Max 10.3W 12VDC: Max 9.3W |
| Product Dimensions / Weight | Ø 180 x 125mm (Ø 7.1" x 4.9") 1.45kg (3.20lb) | W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb) | Ø 91 x 368.6mm (Ø 6.3" x 4.67") 2.18kg (4.81lb) | Ø 70 x 296mm (Ø 2.76" x 11.65") 1.22kg (2.69lb) |
| Additional Features | Modular structure | Handover, Hallway View | Handover, Hallway View | Handover, Hallway View |



XND-8080R/8080RV
SMP IR Dome Camera



XND-8020R/8030R/8040R
SMP IR Dome Camera



XND-8020F
SMP Flush Mount Dome Camera



XNV-8080R
SMP IR Vandal Dome Camera

| | | | | |
|-----------------------------------|---|---|--|---|
| Imaging Device | 1/1.8" CMOS | | | |
| Resolution / Max. Frame Rate | H.265, H.264, MJPEG | | | |
| Min. Illumination | Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on) | Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6) | Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | CVBS 1.0Vp-p, Micro USB type B | Micro USB type B | CVBS 1.0Vp-p, Micro USB type B |
| Focal Length (Zoom Ratio) | 3.9 ~ 9.4mm (2.4x) motorized varifocal | 3.7mm fixed (XND-8020R) 4.6mm fixed (XND-8030R) 7.0mm fixed (XND-8040R) | 3.7mm fixed | 3.9 ~ 9.4mm (2.4x) motorized varifocal |
| Angular Field of View | H: 92.1° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (Tele) D: 119.9° (Wide) ~ 48.6° (Tele) | H: 97.5° / V: 71.9° / D: 126.2° (XND-8020R) H: 77.9° / V: 57.9° / D: 98.7° (XND-8030R) H: 50.7° / V: 37.8° / D: 63.8° (XND-8040R) | H: 97.5° / V: 71.9° / D: 126.2° | H: 92.1° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (Tele) D: 119.9° (Wide) ~ 48.6° (Tele) |
| Pan / Tilt / Rotate Range | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 355° / 0° ~ 47° / 0° ~ 353° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° |
| IR Viewable Length | 30m (98.43ft) | 30m (98.43ft) | - | 50m (164.04ft) |
| Day & Night | Auto (ICR) | Auto (ICR) | Auto (Electrical) | Auto (ICR) |
| Wide Dynamic Range | 120dB | 120dB | - | 120dB |
| Digital Noise Reduction | SSNR V | | | |
| Digital Image Stabilization | Support | Support (Built-in Gyro sensor) | Support | Support |
| Analytics | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification |
| Business Intelligence | - | People counting, Queue management, Heatmap | People counting, Queue management, Heatmap | - |
| Alarm I/O | 1 / 1 | 1 / 1 | - | 1 / 1 |
| Audio I/O | Selectable (mic in/line in) / Line out | Selectable (mic in/line in), Built-in mic / Line out | Built-in mic / - | Selectable (mic in/line in) / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | |
| WiseStream | WiseStream II | | | |
| 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, SUNAPI, Hanwha Vision Open Platform | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform | ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform |
| Operating Temperature | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -40°C ~ +55°C (-40°F ~ +131°F) |
| Certification | IK08 | IK08 | - | IP67, IP66, NEMA4X, IK10 |
| Power Consumption | PoE: Max 10W 12VDC: Max 9W | PoE: Max 9W 12VDC: Max 8W | PoE: Max 4.7W | PoE: Max 12.95W 12VDC: Max 11.5W 24VAC: Max 14W |
| Operating Temperature / Humidity | Ø 140.8 x 113mm (Ø 5.54" x 4.45") 628g (1.38lb) (XND-8080R) 732g (1.61lb) (XND-8080RV) | Ø 110 x 90mm (Ø 4.33" x 3.54") 380g (0.84lb) | Ø 98.9 x 129.1mm (Ø 3.89" x 5.08") 275g (0.61lb) | Ø 160 x 118.5mm (Ø 6.3" x 4.67") 1.01kg (2.23lb) |
| Additional Features | Handover, Hallway View | | | |



XNV-8080RSA
5MP Stainless IR Vandal Dome Camera



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



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

| | | | |
|-----------------------------------|--|--|--|
| Imaging Device | 1/1.8" CMOS | 1/1.8" CMOS | 1/2.3" 12MP CMOS |
| Resolution / Max. Frame Rate | 5MP / 30fps | 5MP / 30fps | 3008 x 3008 / 30fps |
| Min. Illumination | Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on) | Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.39Lux (F2.2) BW : 0Lux (IR LED on) |
| Video Out | CVBS 1.0 Vp-p, Micro USB type B | | |
| Focal Length (Zoom Ratio) | 3.9 ~ 9.4mm (2.4x) motorized varifocal | 3.7mm fixed (XNV-8020R) 4.6mm fixed (XNV-8030R) 7.0mm fixed (XNV-8040R) | 1.08mm fixed focal |
| Angular Field of View | H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele) | H : 97.5° / V : 71.9° / D : 126.2° (XNV-8020R) H : 77.9° / V : 57.9° / D : 98.7° (XNV-8030R) H : 50.7° / V : 37.8° / D : 63.8° (XNV-8040R) | H : 187° / V : 187° / D : 187° |
| Pan / Tilt / Rotate Range | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | - |
| IR Viewable Length | 50m (164.04ft) | 30m (98.43ft) | 10m (32.8ft), Wise IR |
| Day & Night | Auto (ICR) | | |
| Wide Dynamic Range | 120dB | 120dB | extremeWDR (120dB) |
| Digital Noise Reduction | SSNR V | | |
| Digital Image Stabilization | Support | Support (Built-in Gyro sensor) | - |
| Analytics | Intelligent analytics, Audio detection, Sound classification | | |
| Business Intelligence | - | People counting, Queue management, Heatmap | People counting, Queue management, Heatmap |
| Alarm I/O | 1 / 1 | 1 / 1 | 2 configured I / O |
| Audio I/O | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in), Built-in mic / Line out |
| Video Compression | H.265 / H.264, MJPEG | | |
| WiseStream | WiseStream II | | |
| Streaming | Up to 10 Profiles | | |
| Edge Storage | micro SD/SDHC/SDXC | | |
| Application Programming Interface | ONVIF profile S/G, SUNAPI Hanwha Vision Open Platform | ONVIF profile S/G, SUNAPI Hanwha Vision Open Platform | ONVIF Profile S/G/T SUNAPI(HTTP API) Hanwha Vision Open Platform |
| Operating Temperature / Humidity | -40°C ~ +55°C (-40°F ~ +131°F) | -30°C ~ +55°C (-22°F ~ +131°F) | -40°C ~ +60°C (-40°F ~ +140°F) / 0 ~ 95% RH |
| Certification | IP66, NEMA4X, IP6K9K, IK10+ | IP66, IP67, IK10 | IP66, IK10, NEMA4X, EN50155 class T3 (XNF-9010RVM only) |
| Power Consumption | PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W | PoE : Max 9W 12VDC : Max 8W | PoE : Max 12.95W, typical 11W 12VDC : Max 11W, typical 9.1W |
| Product Dimensions / Weight | Ø 160 X 120.5mm (Ø 6.38" x 4.74") 2.8kg (6.17lb) | Ø 120 x 97.5mm (Ø 4.72" x 3.84") 615g (1.36lb) | Ø 160 x 72mm (Ø 6.38" x 2.83") 1.1kg (2.43lb) |
| Additional Features | Handover, Hallway View | Handover, Hallway View | Various mode support (Original, Double panorama, Single panorama, Quad view) M12 Connector (XNF-9010RVM) |



XNF-9010RS
12MP IR Fisheye Camera



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



XNB-6005
2MP Box Camera (extraLUX)



XNB-6000
2MP Box Camera

| | | | | |
|-----------------------------------|--|--|--|--|
| Imaging Device | 1/2.3" 12MP CMOS | 1/1.8" CMOS | 1/2" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 3008 x 3008 / 30fps | 2048 x 2048 / 30fps | 2MP / 60fps | 2MP / 60fps |
| Min. Illumination | Colour: 0.39Lux (F2.2, 1/30sec) BW: 0Lux (IR LED on) | Colour: 0.1Lux (F1.6) B/W: 0Lux (IR LED on) | Colour: 0.006Lux (F1.2) B/W: 0.0006Lux (F1.2) | Colour: 0.01Lux (F1.2) B/W: 0.001Lux (F1.2) |
| Video Out | CVBS: 1.0 Vp-p, Micro USB Type B | | | |
| Focal Length (Zoom Ratio) | 1.08mm fixed focal | 1.6mm fixed | - | - |
| Angular Field of View | H: 187° / V: 187° / D: 187° | H: 192° / V: 192° / D: 192° | - | - |
| Pan / Tilt / Rotate Range | - | - | - | - |
| IR Viewable Length | 9m (29.53ft), Wise IR | 15m (49.21ft) | - | - |
| Day & Night | Auto (ICR) | Auto (ICR) | Auto (ICR) | Auto (ICR) |
| Wide Dynamic Range | extremeWDR (120dB) | 120dB | 150dB | 150dB |
| Digital Noise Reduction | SSNR V | SSNR V | SSNR V | SSNR V |
| Digital Image Stabilization | - | - | Support (Built-in Gyro sensor) | Support (Built-in Gyro sensor) |
| Analytics | Intelligent analytics, Audio detection, Sound classification | | | |
| Business Intelligence | People counting, Queue management, Heatmap | People counting, Queue management, Heatmap | - | - |
| Alarm I/O | 2 configured I/O | 1 / 1 | 1 / 1 | 1 / 1 |
| Audio I/O | Selectable (mic in/line in) / Line out | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in), Built-in mic / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | |
| WiseStream | WiseStream II | | | |
| Streaming | Up to 10 Profiles | | | |
| Edge Storage | micro SD/SDHC/SDXC | | | |
| Application Programming Interface | ONVIF Profile S/G/T SUNAPI(HTTP API) Hanwha Vision Open Platform | ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform |
| Operating Temperature / Humidity | -40°C ~ +50°C (-40°F ~ +122°F) / 0~95%RH | -10°C ~ +55°C (+14°F ~ +131°F) (XNF-8010R) -40°C ~ +55°C (-40°F ~ +131°F) (XNF-8010RV/8010RVM) | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) |
| Certification | IP66, IP67, IP6K9K, NEMA4X, IK10, IK10+ (it can resist impacts of 40 joules), NSF, ANSI Standard 169 - Special Purpose Food Equipment and Devices. | IP66, IK10 (XNF-8010RV/8010RVM) | - | - |
| Power Consumption | PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W | PoE: Max 12W, 12VDC: Max 11W (XNF-8010R) PoE: Max 12.95W, 12VDC: Max 12W (XNF-8010RV/8010RVM) | PoE: Max. 8.5W 12VDC: Max 8W 24VAC: Max 9W | PoE: Max 7.5W 12VDC: Max 6.5W 24VAC: Max 8W |
| Product Dimensions / Weight | Ø 167.9 x 72.1mm (Ø66.1" x 28.38") 2.98kg (6.57lb) | Ø 146 x 54.8mm (Ø5.75" x 2.16") 730g (1.61lb) (XNF-8010R) Ø 146 x 65.8mm (Ø5.75" x 2.59") 785g (1.73lb) (XNF-8010RV) 790g (1.74lb) (XNF-8010RVM) | W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb) | W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb) |
| Additional Features | Various mode support (Original, Double panorama, Single panorama, Quad view) | M12 Connector (XNF-8010RVM), Built-in MIC, On board dewarpping | Handover, Hallway View | Handover, Hallway View |



XNB-6001
2MP Remote Head Camera



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



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



SLA-T1080F
2MP lens for XNB-6001

| | | | | |
|-----------------------------------|--|---|---|---|
| Imaging Device | - | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 2MP / 60fps | - | - | - |
| Min. Illumination | - | Colour: 0.06Lux (F2.5) B/W: 0.06Lux (F2.5) | Colour: 0.45Lux (F2.0) B/W: 0.45Lux (F2.0) | Colour: 0.03Lux (F1.6) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | - | - | - |
| 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: 168° | H: 187° / V: 113.9° |
| Pan / Tilt / Rotate Range | - | | | |
| IR Viewable Length | - | | | |
| Day & Night | - | Auto (Electrical) | Auto (Electrical) | Auto (Electrical) |
| Wide Dynamic Range | 120dB | - | - | - |
| Digital Noise Reduction | SSNR V | - | - | - |
| Digital Image Stabilization | Support | - | - | - |
| Analytics | Intelligent analytics Audio detection | - | - | - |
| Business Intelligence | People counting, Queue management, Heatmap | - | - | - |
| Alarm I/O | 1 / 1 | - | - | - |
| Audio I/O | Selectable (mic in/line in) / Line out | - | - | - |
| Video Compression | H.265 / H.264, MJPEG | - | - | - |
| WiseStream | WiseStream II | - | - | - |
| Streaming | Up to 10 Profiles | - | - | - |
| Edge Storage | SD/SDHC/SDXC | - | - | - |
| Application Programming Interface | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform | - | - | - |
| Operating Temperature / Humidity | -10°C ~ +55°C (+14°F ~ +131°F) | | | |
| Certification | - | | | |
| Power Consumption | PoE: Max 6W 12VDC: Max 6.5W | - | - | - |
| Product Dimensions / Weight | W 131.1 x H 28 x D 86mm (5.16" x 1.1" x 3.39") 245g (0.54lb) | 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) |
| Additional Features | Handover, Hallway View | - | - | - |



XNO-6120R
2MP IR Bullet Camera



XNO-6085R
2MP IR Bullet Camera (extraLUX)



XNO-6080R
2MP IR Bullet Camera



XNO-L6080R
2MP IR Bullet Camera



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

| Imaging Device | 1/2.8" CMOS | | 1/2" CMOS | | 1/2.8" CMOS | | 1/2.8" CMOS | |
|-----------------------------------|--|--|--|--|--|--|--|--|
| Resolution / Max. Frame Rate | 2MP / 60fps | | | | | | | |
| Min. Illumination | Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on) | | Colour : 0.004Lux (F0.94) B/W : 0Lux (IR LED on) | | Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on) | | Colour : 0.03lux (F1.6) B/W : 0Lux (IR LED on) | |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | | | | | | | |
| Focal Length (Zoom Ratio) | 5.2 ~ 62.4mm (Optical 12x) | | 4.1 ~ 16.4mm (Optical 4x) motorized varifocal | | 2.8 ~ 12mm (4.3x) motorized varifocal | | 3.2 ~ 10mm (3.1x) motorized varifocal | |
| Angular Field of View | H: 54.58° (Wide) ~ 5.3° (Tele) V: 32.19° (Wide) ~ 3° (Tele) D: 61.4° (Wide) ~ 6.06° (Tele) | | H: 100° (Wide) ~ 26.2° (Tele) V: 54° (Wide) ~ 14.8° (Tele) D: 116° (Wide) ~ 30° (Tele) | | H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele) | | H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele) | |
| Pan / Tilt / Rotate Range | - | | | | | | | |
| IR Viewable Length | 70m (229.66ft) | | 70m (229.66ft) | | 50m (164.04ft) | | 30m (98.42ft) | |
| Day & Night | Auto (ICR) | | | | | | | |
| Wide Dynamic Range | 150dB | | | | | | | |
| Digital Noise Reduction | SSNR V | | | | | | | |
| Digital Image Stabilization | Support | | Support | | Support | | Support | |
| Analytics | Intelligent analytics Audio detection Sound classification | | Intelligent analytics Audio detection Sound classification | | Intelligent analytics Audio detection Sound classification | | Intelligent analytics Audio detection Sound classification | |
| Business Intelligence | - | | - | | - | | People counting, Queue management, Heatmap | |
| Alarm I/O | 1 / 1 | | 1 / 1 | | 1 / 1 | | - | |
| Audio I/O | Selectable (mic in/line in) / Line out | | Selectable (mic in/line in) / Line out | | Selectable (mic in/line in) / Line out | | - | |
| Video Compression | H.265 / H.264, MJPEG | | | | | | | |
| WiseStream | WiseStream II | | | | | | | |
| Streaming | Up to 10 Profiles | | | | | | | |
| Edge Storage | micro SD/SDHC/SDXC | | | | | | | |
| Application Programming Interface | ONVIF profile S/G, SUNAPI, Wisenet open platform | | ONVIF profile S/G, SUNAPI, Wisenet open platform | | ONVIF profile S/G/T, SUNAPI, Wisenet open platform | | ONVIF profile S/G, SUNAPI, Wisenet open platform | |
| Operating Temperature / Humidity | -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F) | | -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F) | | -40°C ~ +55°C (-40°F ~ +131°F) | | -40°C ~ +55°C (-40°F ~ +131°F) | |
| Certification | IP67, IP66, NEMA 4X, IK10 | | IP67, IP66, NEMA 4X, IK10 | | IP67, IP66, NEMA 4X, IK10 | | IP66, IK10 | |
| Power Consumption | PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W | | PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 12.95W | | PoE : Max 12.95W 12VDC : Max 12W 24VAC : Max 15W | | PoE : Max. 11W | |
| Product Dimensions / Weight | Ø91 x 368.6mm (Ø3.58" x 14.51") 2.18kg (4.81lb) | | Ø91 x 388.6mm (Ø3.58" x 15.3") 2.35kg (5.18lb) | | Ø91 x 368.6mm (Ø3.58" x 14.51") 2.18kg (4.81lb) | | Ø91 x 322.9mm (Ø3.58" x 12.71") 1.29kg (4.25lb) | |
| Additional Features | Handover, Hallway View | | | | | | | |



XND-6085
2MP Dome Camera (extraLUX)



XND-6080/6080V
2MP Dome Camera



XND-6080R
2MP IR Dome Camera



XND-L6080R
2MP IR Dome Camera

| | | | | |
|-----------------------------------|---|---|---|---|
| Imaging Device | 1/2" CMOS | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 2MP / 60fps | | | |
| Min. Illumination | Colour : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94) | Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4) | Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on) | Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | | | |
| Focal Length (Zoom Ratio) | 4.1~16.4mm (Optical 4x) | 2.8~12mm (4.3x) motorized varifocal | 2.8~12mm (4.3x) motorized varifocal | 3.2~10mm (3.1x) motorized varifocal |
| Angular Field of View | H : 100° (Wide) ~ 26.2° (Tele) V : 54° (Wide) ~ 14.8° (Tele) D : 116° (Wide) ~ 30° (Tele) | H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele) | H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele) | H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele) |
| Pan / Tilt / Rotate Range | ± 175° / ± 73° / ± 175° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° |
| IR Viewable Length | - | - | 30m (98.43ft) | 30m (98.42ft) |
| Day & Night | Auto (ICR) | | | |
| Wide Dynamic Range | - | 150dB | 150dB | 120dB |
| Digital Noise Reduction | SSNR V | | | |
| Digital Image Stabilization | Support (Built-in Gyro sensor) | Support | Support | Support |
| Analytics | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification | Intelligent analytics |
| Business Intelligence | - | | | |
| Alarm I/O | 1 / 1 | 1 / 1 | 1 / 1 | - |
| Audio I/O | Selectable (mic in/line in) / Line out | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in), Built-in mic / Line out | - |
| Video Compression | H.265 / H.264, MJPEG | | | |
| WiseStream | WiseStream II | | | |
| Streaming | Up to 10 Profiles | | | |
| Edge Storage | SD/SDHC/SDXC | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC |
| 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, SUNAPI, Hanwha Vision Open Platform |
| Operating Temperature / Humidity | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) |
| Certification | IK08 | | | |
| Power Consumption | PoE : Max 10.2W 12VDC : Max 8.6W | PoE : Max 6.5W 12VDC : Max 6W | PoE : Max 10W 12VDC : Max 9W | PoE : Max 8W |
| Product Dimensions / Weight | Ø 160 x 140mm (Ø 6.3" x 5.51") 1.1 kg (2.43lb) (XND-6085) 1.25 kg (2.76lb) (XND-6085V) | Ø 140.8 x 113mm (Ø 5.54" x 4.45") 610g (1.34lb) (XND-6080) 714g (1.57lb) (XND-6080V) | Ø 140.8 x 113mm (Ø 5.54" x 4.45") 624g (1.38lb) (XND-6080R) 724g (1.60lb) (XND-6080RV) | Ø 140.8 x 113mm (Ø 5.54" x 4.45") 580g (1.28lb) (XND-L6080R) 690g (1.52lb) (XND-L6080RV) |
| Additional Features | Handover, Hallway View | Handover, Hallway View | Handover, Hallway View | Defog, Hallway View |



XND-6020R
2MP IR Dome Camera



XND-6011F
2MP Flush Mount Dome Camera



XND-6010
2MP Dome Camera



XNV-6120/6120R
2MP Vandal / IR Vandal Dome Camera

| | | | | |
|-----------------------------------|--|---|---|--|
| Imaging Device | 1/2.8" CMOS | | | |
| Resolution / Max. Frame Rate | 2MP / 60fps | | | |
| Min. Illumination | Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on) | Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0) | Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0) | Colour : 0.03Lux (F1.6), B/W : 0.003Lux (F1.6) (XNV-6120) Colour : 0.03Lux (F1.6), B/W : 0Lux (IR LED on) (XNV-6120R) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | Micro USB type B | CVBS 1.0Vp-p, Micro USB type B | CVBS 1.0Vp-p, Micro USB type B |
| Focal Length (Zoom Ratio) | 4mm fixed | 2.8mm fixed | 2.4mm fixed | 5.2~62.4mm (Optical 12x) |
| Angular Field of View | H : 88.6° / V : 47.5° / D : 104.8° | H : 112° / V : 62° / D : 130° | H : 139° / V : 73° / D : 167° | H : 54.58° (Wide) ~ 5.3° (Tele) V : 32.19° (Wide) ~ 3° (Tele) D : 61.4° (Wide) ~ 6.06° (Tele) |
| Pan / Tilt / Rotate Range | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 355° / 0° ~ 47° / 0° ~ 353° | 0° ~ 354° / 0° ~ 75° / 0° ~ 355° | 0° ~ 354° / 0° ~ 75° / 0° ~ 355° |
| IR Viewable Length | 30m (98.43ft) | - | - | 70m (229.66ft) (XNV-6120R) |
| Day & Night | Auto (ICR) | Auto (Electrical) | Auto (ICR) | Auto (ICR) |
| Wide Dynamic Range | 150dB | - | 150dB | 150dB |
| Digital Noise Reduction | SSNR V | | | |
| Digital Image Stabilization | Support | Support | Support | Support (Built-in Gyro sensor) |
| Analytics | Intelligent analytics, Audio detection, Sound classification | | | |
| Business Intelligence | People counting, Queue management, Heatmap | People counting, Queue management, Heatmap | People counting, Queue management, Heatmap | - |
| Alarm I/O | 1 / 1 | - | 1 / 1 | 1 / 1 |
| Audio I/O | Selectable (mic in/line in), Built-in mic / Line out | Built-in mic / - | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in) / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | |
| WiseStream | WiseStream II | | | |
| Streaming | Up to 10 Profiles | | | |
| Edge Storage | SD/SDHC/SDXC | SD/SDHC/SDXC | micro SD/SDHC/SDXC | SD/SDHC/SDXC |
| Application Programming Interface | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform | 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 |
| Operating Temperature / Humidity | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F) |
| Certification | IK08 | - | IK08 | IP67, IP66, NEMA 4X, IK10 |
| Power Consumption | PoE : Max 9W 12VDC : Max 8W | PoE : Max 4.7W | PoE : Max 6.5W 12VDC : Max 6W | PoE : Max. 7.8W, 12V DC : Max 7W, 24V AC : Max. 8.2W (XNV-6120) PoE : Max. 12.95W, 12V DC : Max. 11.5W, 24V AC : Max. 14W (XNV-6120R) |
| Product Dimensions / Weight | 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 140.8 x 113mm (Ø 5.54" x 4.45") 610g (1.34lb) | Ø 160 x 128.5mm (Ø 6.3" x 5.06") 985g (2.17lb) (XNV-6120) 995g (2.19lb) (XNV-6120R) |
| Additional Features | Handover, Hallway View | | | |



XNV-6085
2MP Vandal Dome Camera (extraLUX)



XNV-6080
2MP Vandal Dome Camera



XNV-6080R
2MP IR Vandal Dome Camera



XNV-6080RSA
2MP Stainless IR Vandal Dome Camera



XNV-L6080
2MP Vandal Dome Camera

| | | | | | |
|-----------------------------------|--|--|--|--|--|
| Imaging Device | 1/2" CMOS | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 2MP / 60fps | | | | |
| Min. Illumination | Colour : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94) | Colour : 0.015Lux (F1.4) B/W : 0.015Lux (F1.4) | Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on) | Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on) | Colour : 0.03Lux (F1.6) B/W : 0.01Lux (F1.6) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | | | | |
| Focal Length (Zoom Ratio) | 4.1 ~ 16.4mm (Optical 4x) | 2.8 ~ 12mm (4.3x) motorized varifocal | 2.8 ~ 12mm (4.3x) motorized varifocal | 2.8 ~ 12mm (4.3x) motorized varifocal | 3.2 ~ 10mm (3.1x) motorized varifocal |
| Angular Field of View | H: 100° (Wide) ~ 26.2° (Tele) V: 54° (Wide) ~ 14.8° (Tele) D: 116° (Wide) ~ 30° (Tele) | H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele) | H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele) | H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele) | H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele) |
| Pan / Tilt / Rotate Range | ± 175° / ± 73° / ± 175° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° |
| IR Viewable Length | - | - | 50m (164.04ft) | 50m (164.04ft) | - |
| Day & Night | Auto (ICR) | | | | |
| Wide Dynamic Range | 150dB | 150dB | 150dB | 150dB | 120dB |
| Digital Noise Reduction | SSNR V | | | | |
| Digital Image Stabilization | Support (Built-in Gyro sensor) | Support | Support | Support | Support |
| Analytics | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection, Sound classification | Intelligent analytics Audio detection, Sound classification | Intelligent analytics Audio detection, Sound classification | Intelligent analytics |
| Business Intelligence | - | | | | |
| Alarm I/O | 1 / 1 | 1 / 1 | 1 / 1 | 1 / 1 | - |
| Audio I/O | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out | - |
| Video Compression | H.265 / H.264, MJPEG | | | | |
| WiseStream | WiseStream II | | | | |
| Streaming | Up to 10 Profiles | | | | |
| Edge Storage | micro SD/SDHC/SDXC | | | | |
| Application Programming Interface | ONVIF profile S/G, SUNAPI, 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 | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform |
| Operating Temperature / Humidity | -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F) | -40°C ~ +55°C (-40°F ~ +131°F) | -40°C ~ +55°C (-40°F ~ +131°F) | -40°C ~ +55°C (-40°F ~ +131°F) | -40°C ~ +55°C (-40°F ~ +131°F) |
| Certification | IP67, IP66, NEMA 4X, IK10 | IP67, IP66, NEMA 4X, IK10 | IP67, IP66, NEMA 4X, IK10 | IP66, NEMA 4X, IP6K9K, IK10+ | IP66, IK10 |
| Power Consumption | PoE : Max 12.1W 12VDC : Max 11.1W 24VAC : Max 13.5W | PoE : Max 7.8W 12VDC : Max 7W 24VAC : Max 8.2W | PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W | PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W | PoE : Max 8W |
| Product Dimensions / Weight | Ø 160 x 140mm (Ø6.3" x 5.51") 1.4kg (3.09lb) | Ø 160 x 118.5mm (Ø6.3" x 4.67") 985g (2.17lb) | Ø 160 x 118.5mm (Ø6.3" x 4.67") 995g (2.19lb) | Ø 160 x 120.5mm (Ø6.38" x 4.74") 2.8kg (6.17lb) | Ø 160 x 118.5mm (Ø6.3" x 4.67") 940g (2.1lb) |
| Additional Features | Handover, Hallway View | | | | |



XNV-L6080R
2MP IR Vandal Dome Camera



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



XNV-6020R
2MP IR Vandal Dome Camera



XNV-6013M
2MP Mobile Camera



XNV-6012M/6012
2MP Mobile Flat Camera

| | | | | | |
|-----------------------------------|--|--|--|--|--|
| Imaging Device | 1/2.8" CMOS | | | | |
| Resolution / Max. Frame Rate | 2MP / 60fps | | | | |
| Min. Illumination | Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.04Lux (F2.0) B/W : 0Lux (IR LED on) | Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on) | Colour : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0) | Colour : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | Micro USB Type B | CVBS 1.0Vp-p, Micro USB type B | Micro USB Type B | Micro USB type B |
| Focal Length (Zoom Ratio) | 3.2 ~ 10mm (3.1x) motorized varifocal | 3.6mm fixed | 4mm fixed | 2.8mm fixed | 2.4mm fixed |
| Angular Field of View | H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele) | H: 94.8° / V: 49.3° / D: 114.3° | H: 88.6° / V: 47.5° / D: 104.8° | H: 107.4° / V: 62.2° / D: 122° | H: 135.4° / V: 71.2° / D: 161.6° |
| Pan / Tilt / Rotate Range | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | ±5° / 0° ~ 67° / ±90° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | ±5° / ±10° / ±90° | ±5° / 0° ~ 67° / ±90° |
| IR Viewable Length | 30m (98.43ft) | 15m (49.21ft) | 30m (98.43ft) | - | - |
| Day & Night | Auto (ICR) | Auto (ICR) | Auto (ICR) | Auto (Electrical) | Auto (Electrical) |
| Wide Dynamic Range | 120dB | 150dB | 150dB | 150dB | 150dB |
| Digital Noise Reduction | SSNR V | | | | |
| Digital Image Stabilization | Support | Support (Built-in Gyro sensor) | Support | Support (Built-in Gyro sensor) | Support (Built-in Gyro sensor) |
| Analytics | Intelligent analytics | Intelligent analytics Audio detection Sound classification (w/ external MIC) | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification | Intelligent analytics Audio detection Sound classification (w/ external MIC) |
| Business Intelligence | - | - | People counting, Queue management, Heatmap | - | - |
| Alarm I/O | - | - | 1 / 1 | - | - |
| Audio I/O | - | Selectable (mic in/line in), Built-in mic / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in), Built-in mic / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | | |
| WiseStream | WiseStream II | | | | |
| Streaming | Up to 5 Profiles | Up to 10 Profiles | Up to 10 Profiles | Up to 10 Profiles | Up to 10 Profiles |
| Edge Storage | micro SD/SDHC/SDXC | | | | |
| Application Programming Interface | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform | | | | |
| Operating Temperature / Humidity | -40°C ~ +55°C (-40°F ~ +131°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) |
| Certification | IP66, IK10 | IP66, IK10, NEMA4X | IP67, IP66, IK10 | IP67, IP6K9K, IK10, NEMA4X | IP66, IK10, NEMA4X |
| Power Consumption | PoE : Max 11W | PoE : Max 6.7W | PoE : Max 9W 12V DC : Max 8W | PoE : Max 7.2W | PoE : Max 6.5W |
| Product Dimensions / Weight | Ø160 x 118.5mm (Ø6.3" x 4.67") 940g (2.07lb) | W98.9 x H52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb) | Ø120 x 97.5mm (Ø4.72" x 3.84") 615g (1.36lb) | W 103.7 x H 72.3 x D 126.8mm (4.08" x 2.85" x 4.99") 478g (1.04lb) | W98.9 x H52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb) |
| Additional Features | Handover, Hallway View | M12 Connector (XNV-6022RM) Handover, Hallway View | Handover, Hallway View | M12 Connector Handover, Hallway View | M12 Connector (XNV-6012M) Handover, Hallway View |



XNV-6011
2MP Vandal Dome Camera



XNV-6010
2MP Vandal Dome Camera

PTZ PLUS



XNP-9300RW
8MP 30x Wiper + IR PTZ Camera

PTZ PLUS



XNP-8300RW
6MP 30x Wiper + IR PTZ Camera

PTZ PLUS



XNP-6400RW
2MP 40x Wiper + IR PTZ Camera

| | | | | | |
|-----------------------------------|--|--|---|--|--|
| Imaging Device | 1/2.8" CMOS | | | | |
| Resolution / Max. Frame Rate | 2MP / 60fps | 2MP / 60fps | 4K / 30fps | 6MP / 30fps | 2MP / 60fps |
| Min. Illumination | Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0) | Colour : 0.055Lux (F2.0) B/W : 0.0055Lux (F2.0) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) |
| Video Out | CVBS 1.0Vp-p, Micro USB type B | CVBS 1.0Vpp, Micro USB type B | - | - | - |
| Focal Length (Zoom Ratio) | 2.8mm fixed | 2.4mm fixed | 5~150mm(30x) zoom (digital 32x, total 960x zoom) | 5~150mm(30x) zoom (digital 32x, total 960x zoom) | 4.25~170mm(40x) zoom (digital 32x, total 1280x zoom) |
| Angular Field of View | H: 112° / V: 62° / D: 130° | H: 139° / V: 73° / D: 167° | H: 57.42°(Wide)~2.19°(Tele) V: 33.54°(Wide)~1.25°(Tele) | H: 57.42°(Wide)~2.19°(Tele) V: 33.54°(Wide)~1.25°(Tele) | H: 65.66°(Wide)~1.88°(Tele) V: 39.40°(Wide)~1.09°(Tele) |
| Pan / Tilt / Rotate | 0° ~ 353° / 0° ~ 59° / 0° ~ 353° | 0° ~ 354° / 0° ~ 67° / 0° ~ 355° | 360° Endless / 110° (-20° ~ 90°) / - | 360° Endless / 110° (-20° ~ 90°) / - | 360° Endless / 110° (-20° ~ 90°) / - |
| IR Viewable Length | - | - | 200m(656.17ft), Wise IR | 200m(656.17ft), Wise IR | 200m(656.17ft), Wise IR |
| Day & Night | Auto (Electrical) | Auto (ICR) | Auto(ICR)/Colour/BW/Schedule | Auto(ICR)/Colour/BW/Schedule | Auto(ICR)/Colour/BW/Schedule |
| Wide Dynamic Range | 150dB | 150dB | Extreme WDR(120dB) | Extreme WDR(120dB) | Extreme WDR(150dB) |
| Digital Noise Reduction | SSNR V | | | | |
| Digital Image Stabilization | Support | Support | Support (built-in gyro sensor) | Support (built-in gyro sensor) | Support (built-in gyro sensor) |
| Analytics | Intelligent analytics | Intelligent analytics Audio detection Sound classification | Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Shock detection * Audio detection, Sound classification(with NWI/O Box) | | |
| Business Intelligence | People counting, Queue management, Heatmap | People counting, Queue management, Heatmap | - | - | - |
| Alarm I/O | - | 1 / 1 | Compatible with NWI/O Box (Optional: SPM-4210) | | |
| Audio I/O | - | Selectable (mic in/line in) / Line out | Compatible with NWI/O Box (Optional: SPM-4210) | | |
| Video Compression | H.265, H.264, MJPEG | | | | |
| WiseStream | WiseStream II | WiseStream II | Manual(Sea area), WiseStream II | Manual(Sea area), WiseStream II | Manual(Sea area), WiseStream II |
| Streaming | Up to 10 Profiles | | | | |
| Edge Storage | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC | Micro SD/SDHC/SDXC 2slots 1TB(512GBx2) | | |
| Application Programming Interface | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform | ONVIF profile S/G, SUNAPI, Hanwha Vision Open Platform | ONVIF Profile S/G/T, SUNAPI(HTTP API) Hanwha Vision Open Platform | | |
| Operating Temperature | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -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, NEMA4X | IP67, IP66, IK10 | IP66, IK10, NEMA4X, NEMA-TS 2(2.2.7, 2.2.8, 2.2.9) | | |
| Power Consumption | PoE: Max 6.5W | PoE: Max 6W / 12V DC: Max 5.5W | Typical 20W, Max 42W | | |
| Dimensions (WxHxD) / Weight | Ø112.8x63.7mm (Ø4.44" x 2.51") 420g (0.93lb) | Ø120x97.5mm (Ø4.72" x 3.84") 625g (1.38lb) | Ø184.9x318.8mm(7.28x12.55") / 5400g(11.90lb) | Ø184.9x318.8mm(7.28x12.55") / 5400g(11.90lb) | Ø184.9x318.8mm(7.28x12.55") / 5400g(11.90lb) |
| Additional Features | Handover, Hallway View | Handover, Hallway View | Upgraded preset accuracy, built-in wiper, object auto tracking, Target lock tracking Included SFP slot in HPoE injector | | |

PTZ PLUS



XNP-9250R
8MP 25x IR PTZ Camera

PTZ PLUS



XNP-8250R
6MP 25x IR PTZ Camera

PTZ PLUS



XNP-6400R
2MP 40x IR PTZ Camera

PTZ PLUS



XNP-9250
8MP 25x PTZ Camera

PTZ PLUS



XNP-8250
6MP 25x PTZ Camera

PTZ PLUS



XNP-6400
2MP 40x PTZ Camera

| Imaging Device | 1/2.8" CMOS | | | | | |
|-----------------------------------|---|--|--|--|--|--|
| Resolution / Max. Frame Rate | 4K / 30fps | 6MP / 30fps | 2MP / 60fps | 4K / 30fps | 6MP / 30fps | 2MP / 60fps |
| Min. Illumination | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec) | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec) | Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec) |
| Video Out | - | | | | | |
| Focal Length (Zoom Ratio) | 5~125mm(25x) zoom (digital 32x, total 800x zoom) | 5~125mm(25x) zoom (digital 32x, total 800x zoom) | 4.25~170mm(40x) zoom (digital 32x, total 1280x zoom) | 5~125mm(25x) zoom (digital 32x, total 800x zoom) | 5~125mm(25x) zoom (digital 32x, total 800x 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: 65.66°(Wide)~1.88°(Tele) V: 39.40°(Wide)~1.09°(Tele) | H: 57.42°(Wide)~2.71°(Tele) V: 33.54°(Wide)~1.55°(Tele) | H: 57.42°(Wide)~2.71°(Tele) V: 33.54°(Wide)~1.55°(Tele) | H: 65.66°(Wide)~1.88°(Tele) V: 39.40°(Wide)~1.09°(Tele) |
| Pan / Tilt / Rotate Range | 360° Endless / 110°(-20°~90°) / - | 360° Endless / 110°(-20°~90°) / - | 360° Endless / 110°(-20°~90°) / - | 360° Endless / 110°(-20°~90°) / - | 360° Endless / 110°(-20°~90°) / - | 360° Endless / 110°(-20°~90°) / - |
| IR Viewable Length | 200m(656.17ft), Wise IR | 200m(656.17ft), Wise IR | 200m(656.17ft), Wise IR | - | - | - |
| Day & Night | Auto(ICR)/Colour/BW/Schedule | Auto(ICR)/Colour/BW/Schedule | Auto(ICR)/Colour/BW/Schedule | Auto(ICR)/Colour/BW/Schedule | Auto(ICR)/Colour/BW/Schedule | Auto(ICR)/Colour/BW/Schedule |
| Wide Dynamic Range | Extreme WDR(120dB) | Extreme WDR(120dB) | Extreme WDR(150dB) | Extreme WDR(120dB) | Extreme WDR(120dB) | Extreme WDR(150dB) |
| Digital Noise Reduction | SSNR V | | | | | |
| Digital Image Stabilization | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) | Support(built-in gyro sensor) |
| Analytics | 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 | Compatible with NW I/O Box (Optional: SPM-4210) | | | | | |
| Audio I/O | Compatible with NW I/O Box (Optional: SPM-4210) | | | | | |
| Video Compression | H.265/H.264: Main/Baseline/High, MJPEG | | | | | |
| WiseStream | Manual(Sea area), WiseStream II | | | | | |
| Streaming | Up to 10 profiles | | | | | |
| Edge Storage | Micro SD/SDHC/SDXC 2slot 1TB | Micro SD/SDHC/SDXC 2slot 1TB | Micro SD/SDHC/SDXC 2slot 1TB | Micro SD/SDHC/SDXC 2slot 1TB | Micro SD/SDHC/SDXC 2slot 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 | -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 | -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 | -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 | -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 | -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 | -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 |
| Certification | IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9) | | | | | |
| Power Consumption | Typical 20W, Max 40W | Typical 20W, Max 40W | Typical 20W, Max 40W | Typical 20W, Max 25W | Typical 20W, Max 25W | Typical 20W, Max 25W |
| Product Dimensions / Weight | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) | ø 158x293.3mm(6.22x11.55") / 3200g(7.05lb) |
| Additional Features | Upgraded preset accuracy, object auto tracking, Target lock tracking Included SFP slot in HPoE injector | | | | | |



XNP-6550RH
2MP 55x IR PTZ Camera



XNP-6371RH
2MP 37x IR PTZ Camera



XNP-6120H
2MP 12x PTZ Camera



XNP-6040H
2MP 4.3x PTZ Camera



XNZ-6320A
2MP 32x Zoom Camera



XNZ-L6320A
2MP 32x Zoom Camera

| | | | | | | | | |
|-----------------------------------|---|---|---|---|---|--|--|--|
| Imaging Device | 1/2.8" 2MP CMOS | | 1/2" 2MP CMOS | | 1/2.8" 2MP CMOS | | 1/2.8" 2MP CMOS | |
| Resolution / Max. Frame Rate | 2MP / 60fps | | | | | | 2MP / 60fps | |
| Min. Illumination | Colour: 0.02Lux (F1.6) B/W: 0Lux (IR LED on) | Colour: 0.01Lux (F1.5, 1/30sec) BW: 0Lux (IR LED) | Colour: 0.03 Lux (1/30sec, F1.6, 30IRE) B/W: 0.003 Lux (1/30sec, F1.6, 30IRE) | Colour: 0.015Lux (F1.4, 1/30sec) BW: 0.0015Lux (F1.4, 1/30sec) | Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6) | Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6) | Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6) | Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6) |
| Video Out | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation | | | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | | CVBS 1.0 Vp-p, Micro USB Type B | | CVBS 1.0 Vp-p |
| Focal Length (Zoom Ratio) | 4.75~261.4mm(55x) zoom | 6~222mm(37x) zoom | 5.2~62.4mm(12x) zoom (digital 32x, total 512x zoom) | 2.8~12mm(4.3x) zoom (digital 32x, total 137.6x zoom) | 4.44 ~ 142.6mm (Optical 32X) (digital 32x, total 1024x zoom) | 4.44 ~ 142.6mm (Optical 32X) (digital 32x, total 1024x zoom) | 4.44 ~ 142.6mm (Optical 32X) (digital 32x, total 1024x zoom) | 4.44 ~ 142.6mm (Optical 32X) (digital 32x, total 1024x zoom) |
| Angular Field of View | H: 58.6°(Wide)~1.23°(Tele) V: 34.8°(Wide)~0.71°(Tele) | H: 59.3°(Wide)~1.90°(Tele) V: 35.8°(Wide)~1.1°(Tele) | H: 54.58°(Wide)~5.30°(Tele) V: 32.19°(Wide)~3.00°(Tele) | H: 119.5°(Wide)~27.9°(Tele) V: 62.8°(Wide)~15.7°(Tele) D: 142.1°(Wide)~32.0°(Tele) | H: 64.66°(Wide)~2.29°(Tele) V: 38.08°(Wide)~1.30°(Tele) | H: 64.66°(Wide)~2.29°(Tele) V: 38.08°(Wide)~1.30°(Tele) | H: 64.66°(Wide)~2.29°(Tele) V: 38.08°(Wide)~1.30°(Tele) | H: 64.66°(Wide)~2.29°(Tele) V: 38.08°(Wide)~1.30°(Tele) |
| Pan / Tilt / Rotate Range | 360° Endless / 95° (-5°~90°) / - | | 360° Endless / 190° (-5°~185°) / - | | 360° Endless / 190° (-5°~185°) / - | | 0°~355° / 0°~90° | |
| IR Viewable Length | 500m(1,640.42ft) | | 350m(1,148.29ft) | | - | | - | |
| Day & Night | Auto(ICR) | | | | | | Auto(ICR) | Auto(ICR) |
| Wide Dynamic Range | 150dB | | | | | | 120dB | 120dB |
| Digital Noise Reduction | SSNR V | | | | | | | |
| Digital Image Stabilization | Support(built-in gyro sensor) | | | | | | | |
| Analytics | Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Sound classification, Shock detection | | Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Sound classification | | Intelligent analytics, Audio detection, Sound classification, Shock detection | | Intelligent analytics, Audio detection, Sound classification | |
| Business Intelligence | - | | - | | - | | - | |
| Alarm I/O | Input 4ea / Output 2ea | | Input 4ea / Output 2ea | | Input 1ea / Output 1ea | | Input 1ea / Output 1ea | |
| 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) / Line out | Selectable (mic in/line in) / Line out |
| Video Compression | H.265/H.264, MJPEG | | | | | | | |
| WiseStream | Manual(Sea area), WiseStream II | | | | | | | |
| Streaming | Up to 10 profiles | | | | | | Up to 10 profiles | Up to 10 profiles |
| Edge Storage | Micro SD/SDHC/SDXC 2slot 512GB | SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC 2slot 512GB | Micro SD/SDHC/SDXC 2slot 512GB | Micro SD/SDHC/SDXC 2slot 512GB | Micro SD/SDHC/SDXC 2slot 512GB | Micro SD/SDHC/SDXC 1slot 256GB | |
| Application Programming Interface | ONVIF Profile S/G/T, SUNAPI(HTTP API) Hanwha Vision Open Platform | | | | | | | |
| Operating Temperature / Humidity | 24VAC: -50°C~+55°C (-58°F~+131°F), Less than 95% RH-Non-Condensing HPoE: -40°C~+55°C (-40°F~+131°F) / Less than 95% RH-Non-Condensing * Start up should be done at above -35°C FAN/Heater included | -50°C~+55°C(-58°F~+131°F) | -30°C~+55°C(-22°F~+131°F) / Less than 90% RH | -30°C~+55°C(-22°F~+131°F) / Less than 90% RH | -10°C~+55°C(-14°F~+131°F) / Less than 90% RH | -10°C~+55°C(-14°F~+131°F) / Less than 90% RH | -10°C~+55°C(-14°F~+131°F) / Less than 90% RH | |
| Certification | IP66, IK10 | | IP66, IK10 | | IP66, IK10 | | - | |
| Power Consumption | 24VAC: Max. 92W (typical: 30W) HPoE: Max. 60W (typical: 30W) | 24VAC: Max 90W | Max. 12W | | DC12V: Max. 8.6W PoE: Max. 9.6W | 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 | |
| Product Dimensions / Weight | ø 236.9x407.7mm(9.33x16.05"), 7.1Kg(15.65lb) | ø 236.9x407.7mm(9.33x16.05"), 7.1Kg(15.65lb) | ø 168x161.5mm(6.61x6.36"), 1.9kg(4.19lb) | | ø 136x106mm(5.35x4.17"), 780g(1.72lb) | | 96 x 76 x 143.5mm(3.78x2.99x5.65"), 578g(1.27lb) | 72 x 63.9 x 135.4mm(2.83x2.52x5.33"), 480g(1.06lb) |
| Additional Features | Defog, Auto tracking | | | | | | Defog | Defog |



PNM-9031RV
15MP 192° IR Panoramic Camera



PNM-9022V
8.3MP 180° / 220° 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" 5MP CMOS (x4) | 1/2.8" 4CH | 1/1.8" 5MP CMOS x 4CH | 1/2.8" CMOS x 4CH |
| Resolution / Max. Frame Rate | 15MP / 20fps | 8.3MP / 30fps | 8MP / 30fps | 8MP / 60fps |
| Min. Illumination | Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED on) | Colour: 0.3Lux(F1.6) Colour: 0.03Lux(F1.6) | Colour: 0.11lux(F1.92, 30IRE) BW: 0Lux(IR LED on) | Colour: 0.05lux(F1.6, 30IRE) BW: 0Lux(IR LED on) |
| Video Out | Micro USB Type B | Micro USB Type B | - | - |
| Focal Length (Zoom Ratio) | 4.3mm Fixed | 2.8mm fixed focal | 4.13~9.4mm(2.3x) motorized varifocal | 3.2~10mm(3.1x) motorized varifocal |
| Angular Field of View | H: 196° / V: 64° (Min distance 5m) H: 197° / V: 64° (Max distance 100m) | H: 209° , V: 83.3° | H: 87.58° (Wide)~37.34° (Tele) / V: 64.58° (Wide)~28.04° (Tele) / D: 112.46° (Wide)~46.85° (Tele) | H: 109.0° (Wide)~33.2° (Tele) V: 57.4° (Wide)~18.7° (Tele) D: 132.0° (Wide)~38.0° (Tele) |
| Pan / Tilt / Rotate Range | 0°~360° / 0°~60° / - | 0°~355° / 0°~60° / - | Remote adjustment (Max. 200cycles) 0°~360° / 35°~80° / 0°~90 | Remote adjustment (Max. 200cycles) 0°~360° / 35°~80° / 0°~90 |
| IR Viewable Length | 20m(65.62ft) | - | 30m(98.43ft) | 30m(98.43ft) |
| Day & Night | Auto(ICR) | | | |
| Wide Dynamic Range | 120dB | extreme WDR(120dB) | 120dB | 120dB |
| Digital Noise Reduction | SSNR V | | | |
| Digital Image Stabilization | - | - | Support | Support |
| Analytics | Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection | Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection | Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection | Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection |
| Business Intelligence | Heatmap | Heatmap | - | - |
| Alarm I/O | 2 / 1. | 1 / 1. | 1 / 1 | 1 / 1 |
| Audio I/O | Selectable (mic in/line in) | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out | Selectable (mic in/line in) / Line out |
| Video Compression | H.265/H.264, MJPEG | H.265, H.264, MJPEG | H.265/H.264, MJPEG | H.265/H.264, MJPEG |
| WiseStream | WiseStream II | WiseStream II | WiseStream II | WiseStream II |
| Streaming | Up to 3 profiles | Up to 10 profiles | Up to 10 profiles | Up to 10 profiles |
| Edge Storage | Micro SD/SDHC/SDXC 2slots 512GB (256GBx2) | Micro SD/SDHC/SDXC | Micro SD/SDHC/SDXC 4slot 256GB(each CH) | Micro SD/SDHC/SDXC 4slot 256GB(each CH) |
| Application Programming Interface | ONVIF Profile S/G/T, SUNAPI(HTTP API) | ONVIF Profile S/G/T, SUNAPI, Hanwha Vision Open Platform | ONVIF Profile S/T, 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) * Startup should be above -30°C Less than 95% RH(Non-condensing) | -40°C~+60°C(-40°F~+131°F) / Less than 95% RH(Non-condensing) * Maximum temperature : +60°C (intermittent) | -40°C~-55°C(-40°F~+131°F) / Less than 90% RH | -40°C~-55°C(-40°F~+131°F) / Less than 90% RH |
| Certification | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X |
| Power Consumption | PoE+: Max 23.5W, Typical 18.0W 12VDC: Max 20.5W, Typical 16.0W" | PoE+: Max 18W, Typical 10.4W | 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 | Ø253x170mm / 2.6Kg | Ø253 x 165mm (Ø9.96" x 6.5") 3200g | Ø315x145.9mm(12.40"x5.74") / 5.2 kg(11.5lb) | Ø315x145.9mm(12.40"x5.74") / 5.2 kg(11.5lb) |
| Additional Features | - | 4CH Stitching | Motorized PTRZ | Motorized PTRZ |



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 3CH | 1/2.8" CMOS x 2CH | 1/2.8" CMOS x 2CH |
| Resolution / Max. Frame Rate | 8MP / 60fps | 2MP / 30fps | 6MP / 15fps | 2MP / 30fps |
| Min. Illumination | Colour: 0.04lux(F2.2, 1/30sec) BW: 0.004lux(F2.2, 1/30sec) | Colour: 0.04lux(F2.2) BW: 0.004lux(F2.2) | Colour: 0.16lux(F1.67, 1/30sec, 30IRE) BW: 0lux(IR LED on) | Colour: 0.035lux(F2.2, 1/30sec, 30IRE) BW: 0lux(IR LED on) |
| Video Out | - | CVBS: 1.0 Vp-p | micro USB Type B | micro USB Type B |
| Focal Length (Zoom Ratio) | 3~6mm(2x) motorized varifocal | 3~6mm(2x) motorized varifocal | 3.54~6.69mm(1.9x) motorized varifocal | 3~6mm(2x) motorized varifocal |
| Angular Field of View | H: 107° (Wide)~56.3° (Tele) V: 57° (Wide)~31.5° (Tele) D: 126° (Wide)~64.3° (Tele) | H: 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 | - | - | 25m(82ft) | 25m(82ft) |
| Day & Night | Auto(ICR) | Auto(ICR) | Auto(ICR) | Auto(ICR) |
| Wide Dynamic Range | 120dB | extremeWDR(150dB) | extremeWDR(120dB) | extremeWDR(150dB) |
| Digital Noise Reduction | SSNR V | SSNR V | WiseNR, SSNR V | WiseNR, SSNR V |
| Digital Image Stabilization | Support | Support | - | - |
| Analytics | Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line detection | Analytics events* - Defocus detection, Motion detection, Tampering, Virtual line(Crossing/Direction), Virtual area(Loitering/Enter/Exit) * Support Audio detection, Sound classification via optional SPM-42101/O box | |
| Business Intelligence | - | - | - | - |
| Alarm I/O | 1 / 1 | - | - | - |
| Audio I/O | Selectable(mic in/line in) / Line out | - | - | - |
| Video Compression | H.265/H.264, MJPEG | H.265, H.264, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG | H.265/H.264: Main/Baseline/High, MJPEG |
| WiseStream | WiseStream II | WiseStream II | WiseStream II | WiseStream II |
| Streaming | Up to 10 profiles | Up to 10 profiles | Up to 10 profiles | Up to 10 profiles |
| Edge Storage | Micro SD/SDHC/SDXC 4slot 256GB(each CH) | Micro SD/SDHC/SDXC | Micro SD/SDHC/SDXC 1slot Max. 512GB | Micro SD/SDHC/SDXC 1slot Max. 512GB |
| 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 | ONVIF Profile S/T SUNAPI(HTTP API) Open platform |
| Operating Temperature / Humidity | -40°C~+55°C(-40°F~+131°F) / Less than 90% RH *Start up should be above at -35°C | | | |
| Certification | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X | IP66/IP67, NEMA4X, IK10 | IP66/IP67, NEMA4X, IK10 |
| 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 | Ø251x116.5mm / 3Kg | Ø251 x 116.5mm (Ø9.88" x 4.59") 3kg(6.6lb) | 215(W)x135(D)x93.2(H)mm(8.46"x5.31"x3.67") / 1330g | 215(W)x135(D)x93.2(H)mm(8.46"x5.31"x3.67") / 1330g |
| Additional Features | Motorized PTRZ | 3CH Multi-directional | - | - |



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



SLA-T4680A/T4680VA
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" 2MP CMOS | 1/2.8" 2MP CMOS | 1/2.8" 2MP CMOS |
| Resolution / Max. Frame Rate | 2MP / 30fps | - | - | - |
| Min. Illumination | - | Colour: 0.06Lux(F2.5) | Colour: 0.045Lux(F2.0) | Colour: 0.03Lux(F1.6) |
| Video Out | HDMI(1920x1080, Quad view support) | - | - | - |
| Focal Length (Zoom Ratio) | - | 4.6mm fixed focal | 2.4mm fixed focal | 1.6mm fixed focal |
| Angular Field of View | - | H: 73° / V: 39° / D: 85° | H: 138° / V: 73° / D: 165° | H: 187° / V: 113.9° |
| Pan / Tilt / Rotate Range | - | - | - | - |
| IR Viewable Length | - | - | - | - |
| Day & Night | Auto(electrical) | - | - | - |
| Wide Dynamic Range | extreme WDR(150dB) | - | - | - |
| Digital Noise Reduction | SSNRV | - | - | - |
| Digital Image Stabilization | Support | - | - | - |
| Analytics | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line | - | - | - |
| Business Intelligence | - | - | - | - |
| Alarm I/O | 1 / 1. | - | - | - |
| Audio I/O | Selectable(mic in/line in) / Line out | - | - | - |
| Video Compression | H.265, H.264, MJPEG | - | - | - |
| WiseStream | WiseStream II | - | - | - |
| Streaming | Up to 10 profiles | - | - | - |
| Edge Storage | Micro SD/SDHC/SDXC | - | - | - |
| 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 | W 200 x H 37 x D 146mm (7.87" x 1.46" x 5.75") 715g (1.58lb) | Ø24 x L49.8mm, 310g (SLA-T4681) W30 x H27.9 x D45mm, 321g (SLA-T4681V) | Ø24 x L49.8mm, 318g (SLA-T2481) W30 x H27.9 x D45mm, 328g (SLA-T2481V) | Ø35 x L68.9mm 430g |
| Additional Features | Optional pinhole/ fixed lens | - | - | - |



QNO-8080R
5MP IR Bullet Camera



QNO-8020R
5MP IR Bullet Camera



QNO-8010R
5MP IR Bullet Camera



QND-8080R
5MP IR Dome Camera



QND-8020R
5MP IR Dome Camera

| | | | | | |
|-----------------------------------|--|--|--|--|---|
| Imaging Device | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 5MP / 30fps | 5MP / 30fps | 5MP / 30fps | 5MP / 30fps | 5MP / 30fps |
| Min. Illumination | Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.15Lux (F2.0) B/W : 0Lux (IR LED on) | Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on) |
| Video Out | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p |
| Focal Length (Zoom Ratio) | 3.2 ~ 10mm (3.1x) motorized varifocal | 4.0mm fixed | 2.8mm fixed | 3.2 ~ 10mm (3.1x) motorized varifocal | 4.0mm fixed |
| Angular Field of View | H: 100.3° (Wide) ~ 31.2° (Tele) / V: 72.3° (Wide) ~ 23.5° (Tele) / D: 133.1° (Wide) ~ 38.8° (Tele) | H: 79.8° / V: 58.1° / D: 105.9° | H: 104.7° / V: 76.5° / D: 136.0° | H: 100.3° (Wide) ~ 31.2° (Tele) / V: 72.3° (Wide) ~ 23.5° (Tele) / D: 133.1° (Wide) ~ 38.8° (Tele) | H: 79.8° / V: 58.1° / D: 105.9° |
| Pan / Tilt / Rotate Range | - | - | - | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° |
| IR Viewable Length | 30m (98.43ft) | 25m (82.02ft) | 20m (65.62ft) | 20m (65.62ft) | 20m (65.62ft) |
| Day & Night | Auto (ICR) | Auto (ICR) | Auto (ICR) | Auto (ICR) | Auto (ICR) |
| Wide Dynamic Range | 120dB | 120dB | 120dB | 120dB | 120dB |
| Digital Noise Reduction | SSNR | SSNR | SSNR | SSNR | SSNR |
| Digital Image Stabilization | - | - | - | - | - |
| Analytics | Intelligent analytics | Intelligent analytics | Intelligent analytics | Intelligent analytics | Intelligent analytics |
| Business Intelligence | - | - | - | - | - |
| Alarm I/O | | | 1/1 | | |
| Audio I/O | - | - | - | - | - |
| Video Compression | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG |
| WiseStream | WiseStream II | WiseStream II | WiseStream II | WiseStream II | WiseStream II |
| Streaming | Up to 3 Profiles | Up to 3 Profiles | Up to 3 Profiles | Up to 3 Profiles | Up to 3 Profiles |
| Edge Storage | Micro SD/SDHC/SDXC | Micro SD/SDHC/SDXC | Micro SD/SDHC/SDXC | Micro SD/SDHC/SDXC | Micro SD/SDHC/SDXC |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI, 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/T, SUNAPI, Hanwha Vision Open Platform |
| Operating Temperature / Humidity | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -10°C ~ +50°C (+14°F ~ +122°F) | -10°C ~ +50°C (+14°F ~ +122°F) |
| Certification | IP66, IK10 | IP66, IK10 | IP66, IK10 | - | - |
| Power Consumption | PoE : Max 9.5W, typical 7.3W | PoE : Max 7.5W, typical 6.1W | PoE : Max 7.5W, typical 6.1W | PoE : Max 8.9W, typical 6.6W | PoE : Max 6.8W, typical 5.0W |
| Dimensions (WxHxD) / Weight | Ø91 x 322.9mm (Ø3.58" x 12.71") 1190g (2.624lb) | Ø70.0 x 246.0mm (Ø2.76" x 9.69") 680g (1.499lb) | Ø70.0 x 246.0mm (Ø2.76" x 9.69") 680g (1.499lb) | Ø120.3 x 102.0mm (Ø4.74" x 4.02") 430g (0.948lb) | Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb) |
| Additional Features | Hallway View | Hallway View | Hallway View | Hallway View | Hallway View |



QND-8010R
5MP IR Dome Camera



QND-8021
5MP Dome Camera



QND-8011
5MP Dome Camera

| | | | |
|-----------------------------------|---|---|---|
| Imaging Device | 1/2.8" CMOS | | |
| Resolution / Max. Frame Rate | 5MP / 30fps | 5MP / 30fps | 5MP / 30fps |
| Min. Illumination | Colour : 0.15Lux (F2.0) B/W : 0Lux (IR LED on) | Colour : 0.15Lux (F1.6) | Colour : 0.15Lux (F2.0) |
| Video Out | CVBS 1.0 Vp-p | Micro HDMI | Micro HDMI |
| Focal Length (Zoom Ratio) | 2.8mm fixed | 4mm fixed | 2.8mm fixed |
| Angular Field of View | H : 104.7° / V : 76.5° / D : 136° | H : 80.1° / V : 58° / D : 105.8° | H : 104.4° / V : 76.7° / D : 136.1° |
| Pan / Tilt / Rotate Range | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 69° / 0° ~ 355° | 0° ~ 350° / 0° ~ 69° / 0° ~ 355° |
| IR Viewable Length | 20m (65.62ft) | - | - |
| Day & Night | Auto (ICR) | Auto (Electrical) | Auto (Electrical) |
| Wide Dynamic Range | 120dB | | |
| Digital Noise Reduction | SSNR | | |
| Digital Image Stabilization | - | | |
| Analytics | Intelligent analytics | Intelligent analytics | Intelligent analytics |
| Business Intelligence | - | People counting | People counting |
| Alarm I/O | 1 / 1 | - | - |
| Audio I/O | - | | |
| Video Compression | H.265 / H.264, MJPEG | | |
| WiseStream | WiseStream II | | |
| Streaming | Up to 3 Profiles | | |
| Edge Storage | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC | 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 |
| Operating Temperature / Humidity | -10°C ~ +50°C (+14°F ~ +122°F) | -10°C ~ +40°C (+14°F ~ +104°F) | -10°C ~ +40°C (+14°F ~ +104°F) |
| Certification | - | IP42, IK08 | IP42, IK08 |
| Power Consumption | PoE : Max 7.5W, typical 5.8W | PoE : Max 5W, typical 4W | PoE : Max 5W, typical 4W |
| Product Dimensions / Weight | Ø 110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb) | Ø 99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb) | Ø 99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb) |
| Additional Features | Hallway View | Super compact design, Hallway View | Super compact design, Hallway View |



QNV-8080R
5MP IR Vandal Dome Camera



QNV-8020R
5MP IR Vandal Dome Camera



QNV-8010R
5MP IR Vandal Dome Camera



QNB-8002
5MP Box Camera



QNE-8011R
5MP IR Flateye Camera

| | | | | |
|-----------------------------------|--|--|--|---|
| Imaging Device | 1/2.8" CMOS | | | |
| Resolution / Max. Frame Rate | 5MP / 30fps | | | |
| Min. Illumination | Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.15Lux (F2.0) B/W : 0Lux (IR LED on) | Colour : 0.07Lux (F1.2) |
| Video Out | CVBS 1.0 Vp-p | | | |
| Focal Length (Zoom Ratio) | 3.2~10mm (3.1x) motorized varifocal | 4.0mm fixed | 2.8mm fixed | 2.8mm fixed |
| Angular Field of View | H: 100.3° (Wide) ~ 31.2° (Tele) V: 72.3° (Wide) ~ 23.5° (Tele) D: 133.1° (Wide) ~ 38.8° (Tele) | H: 79.8° / V: 58.1° / D: 105.9° | H: 104.7° / V: 76.5° / D: 136° | H: 104.4° V: 76.7° D: 136.1° |
| Pan / Tilt / Rotate Range | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 75° / 0° ~ 360° |
| IR Viewable Length | 30m (98.42ft) | 25m (82.02ft) | 20m (65.62ft) | 20m (65.62ft) |
| Day & Night | Auto (ICR) | | | |
| Wide Dynamic Range | 120dB | | | |
| Digital Noise Reduction | SSNR | | | |
| Digital Image Stabilization | - | | | |
| Analytics | Intelligent analytics | | | |
| Business Intelligence | - | | | |
| Alarm I/O | 1 / 1 | 1 / 1 | 1 / 1 | - |
| Audio I/O | - | - | - | Line in / Line out |
| Video Compression | H.265 / H.264, MJPEG | | | |
| WiseStream | WiseStream II | | | |
| Streaming | Up to 3 Profiles | | | |
| Edge Storage | micro SD/SDHC/SDXC | | | |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform | | | |
| Operating Temperature / Humidity | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -10°C ~ +55°C (+14°F ~ +131°F) * Start up above -20°C (-4°F) |
| Certification | IP66, IK10 | IP66, IK10 | IP66, IK10 | IP67, IK10 |
| Power Consumption | PoE : Max 8.9W, typical 6.6W | PoE : Max 7.2W, typical 5.4W | PoE : Max 7.5W, typical 5.8W | PoE : Max 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W |
| Product Dimensions / Weight | Ø 137 x 106.1mm (Ø 5.39" x 4.18") 700g (1.543lb) | Ø 120.3 x 91.7mm (Ø 4.74" x 3.61") 510g (1.124lb) | Ø 120.3 x 91.7mm (Ø 4.74" x 3.61") 510g (1.124lb) | W 73.8 x H 66.6 x D 136.2mm (2.91" x 2.62" x 5.36") 320g (0.71lb) |
| Additional Features | Hallway View | | | |



QNO-7082R
4MP IR Bullet Camera



QNO-7032R
4MP IR Bullet Camera



QNO-7022R
4MP IR Bullet Camera



QNO-7012R
4MP IR Bullet Camera

| | | | | |
|-----------------------------------|--|---|--|--|
| Imaging Device | 1/3" CMOS | | | |
| Resolution / Max. Frame Rate | 4MP / 30fps | | | |
| Min. Illumination | Colour : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On) | Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On) | Colour : 0.15Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On) | Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On) |
| Video Out | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p | CVBS: 1.0 Vp-p | CVBS: 1.0 Vp-p |
| Focal Length (Zoom Ratio) | 3.2~10mm (3.1x) motorized varifocal | 6mm fixed focal | 4mm fixed focal | 2.8mm fixed focal |
| Angular Field of View | H: 98.6°(Wide) ~ 30.8°(Tele) V: 52.3°(Wide) ~ 17.3°(Tele) D: 115.7°(Wide) ~ 35.3°(Tele) | H: 49.0° / V: 27.6° / D: 55.6° | H: 78.2° / V: 41.2° / D: 92° | H: 107.5° / V: 59.7° / D: 122° |
| Pan / Tilt / Rotate Range | - | - | - | - |
| IR Viewable Length | 30m (98.42ft) | 30m (98.42ft) | 25m (82.02ft) | 20m (65.62ft) |
| Day & Night | Auto (ICR) | | | |
| Wide Dynamic Range | 120dB | | | |
| Digital Noise Reduction | SSNR | | | |
| Digital Image Stabilization | - | - | - | - |
| Analytics | Motion detection, Tampering, Defocus detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction) | Intelligent analytics | Motion detection, Tampering, Defocus detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction) | Motion detection, Tampering, Defocus detection, Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction) |
| Business Intelligence | - | - | - | - |
| Alarm I/O | 1/1 | 1/1 | 1/1 | 1/1 |
| Audio I/O | Line in / - | Selectable (mic in/line in) / - | Selectable (mic in/line in) / - | Selectable (mic in/line in) / - |
| Video Compression | H.265 / H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG |
| WiseStream | WiseStream II | | | |
| Streaming | Up to 3 Profiles | | | |
| Edge Storage | micro SD/SDHC/SDXC 1slot 128GB | | | |
| Application Programming Interface | ONVIF Profile S/G/T, SUNAPI (HTTP API) | ONVIF Profile S/G/T, SUNAPI (HTTP API) | ONVIF Profile S/G/T, SUNAPI (HTTP API) | ONVIF Profile S/G/T, SUNAPI (HTTP API) |
| Operating Temperature / Humidity | -40°C ~ +55°C (-40°F ~ +131°F) / 0~95% RH * Start up should be done at -30°C or above | | | |
| Certification | IP66, IK10 | IP66, IK10 | IP66, IK10 | IP66, IK10 |
| Power Consumption | PoE: Max 11.4W, typical 8W 12VDC: Max 9.6W, typical 7W | PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W | PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W | PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W |
| Product Dimensions / Weight | Ø78.0 x 259.8mm (Ø3.07 x 10.23"), 900g (1.984 lb) | Ø70.0 x 246.0mm (Ø2.76 x 9.69"), 700g (1.543 lb) | PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W | PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W |
| Additional Features | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line | | | |



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



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



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

| | | | | | | |
|-----------------------------------|--|--|--------------------------------|---|--|---|
| Imaging Device | 1/2.8" CMOS | | | | | |
| Resolution / Max. Frame Rate | 2MP / 30fps | | | | | |
| Min. Illumination | Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on) | | | | | |
| Video Out | CVBS 1.0 Vp-p | | | | | |
| Focal Length (Zoom Ratio) | 3.2~10mm (3.1x) motorized varifocal | 4mm fixed | | | 2.8mm fixed | |
| Angular Field of View | H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele) | H: 87.6° / V: 46.4° / D: 104.5° | | | H: 113.74° / V: 61.5° / D: 134.45° | |
| Pan / Tilt / Rotate Range | - | | | | | |
| IR Viewable Length | 30m (98.43ft) | 25m (82.02ft) | | | 20m (65.62ft) | |
| Day & Night | Auto (ICR) | | | | | |
| Wide Dynamic Range | 120dB | | | | | |
| Digital Noise Reduction | SSNR | | | | | |
| Digital Image Stabilization | - | | | | | |
| Analytics | Intelligent analytics | | | | | |
| Business Intelligence | - | | | | | |
| Alarm I/O | 1 / 1 | | | | | |
| Audio I/O | Selectable (mic in/line in) | - | Selectable (mic in/line in) | - | Selectable (mic in/line in) | - |
| Video Compression | H.265 / H.264, MJPEG | | | | | |
| WiseStream | WiseStream II | | | | | |
| Streaming | Up to 3 Profiles | | | | | |
| Edge Storage | micro SD/SDHC/SDXC | | | | | |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI, Wisenet open platform | | | | | |
| Operating Temperature / Humidity | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | | | | | |
| Certification | IP66, IK10 | | | | | |
| Power Consumption | PoE: Max 7.4W, typical 5.4W 12VDC: Max 6.5W, typical 4.8W | PoE: Max 7W, typical 5.2W 12VDC: Max 6.1W, typical 4.5W | | | PoE: Max 7W, typical 5.2W 12VDC: Max 6.1W, typical 4.5W | |
| Product Dimensions / Weight | Ø78 x 259.8mm (Ø3.07" x 10.23") 900g (1.984lb) | Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb) | | | Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb) | |
| Additional Features | Hallway View | | | | | |



QND-7082R
4MP IR Dome Camera



QND-7032R
4MP IR Dome Camera



QND-7022R
4MP IR Dome Camera



QND-7012R
4MP IR Dome Camera

| | | | |
|-----------------------------------|---|--|--|
| Imaging Device | 1/3" CMOS | | |
| Resolution / Max. Frame Rate | 4MP / 30fps | | |
| Min. Illumination | Colour: 0.1Lux (F1.6, 1/30sec) B/W: 0Lux (IR LED On) | Colour: 0.15Lux (F2.0, 1/30sec) B/W: 0Lux (IR LED On) | Colour: 0.15Lux (F2.0, 1/30sec) B/W: 0Lux (IR LED On) |
| Video Out | CVBS 1.0 Vp-p | | |
| Focal Length (Zoom Ratio) | 3.2~10mm (3.1x) motorized varifocal | 6mm fixed focal | 4mm fixed focal |
| Angular Field of View | H: 98.6° (Wide) ~ 30.8° (Tele) V: 52.3° (Wide) ~ 17.3° (Tele) D: 115.7° (Wide) ~ 35.3° (Tele) | H: 49.0° / V: 27.6° / D: 55.6° | H: 78.2° / V: 41.2° / D: 92° |
| Pan / Tilt / Rotate Range | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | | |
| IR Viewable Length | 20m (65.62ft) | | |
| Day & Night | Auto (ICR) | | |
| Wide Dynamic Range | 120dB | | |
| Digital Noise Reduction | SSNR | | |
| Digital Image Stabilization | - | | |
| Analytics | Intelligent analytics | | |
| Business Intelligence | - | | |
| Alarm I/O | 1/1 | | |
| Audio I/O | Built-in mic / - | | |
| Video Compression | H.265 / H.264, MJPEG | | |
| WiseStream | WiseStream II | | |
| Streaming | Up to 3 Profiles | | |
| Edge Storage | micro SD/SDHC/SDXC 1slot 128GB | | |
| Application Programming Interface | ONVIF Profile S/G/T, SUNAPI (HTTP API) | | |
| Operating Temperature / Humidity | -10°C ~ +55°C (+14°F ~ +131°F) / 0~95% RH | | |
| Certification | - | | |
| Power Consumption | PoE: Max 8.6W, typical 6.3W 12VDC: Max 7.6W, typical 5.4W | PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W | PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W |
| Product Dimensions / Weight | Ø 119.8 x 98.8mm (Ø 4.72" x 3.89") 320g (0.705 lb) | Ø 110.0 x 86.0mm (Ø 4.33 x 3.39"), 255g (0.562 lb) | Ø 110 x 86mm (Ø 4.33" x 3.39") 255g (0.562 lb) |
| Additional Features | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line | | |



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



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



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

| | | | | | | |
|-----------------------------------|--|---|--|---|--|---|
| Imaging Device | 1/2.8" CMOS | | | | | |
| Resolution / Max. Frame Rate | 2MP / 30fps | | | | | |
| Min. Illumination | Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on) | | Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on) | | Colour : 0.03Lux (F2.0) B/W : 0Lux (IR LED on) | |
| Video Out | CVBS 1.0 Vp-p | | | | | |
| Focal Length (Zoom Ratio) | 3.2~10mm (3.1x) motorized varifocal | | 4mm fixed | | 2.8mm fixed | |
| Angular Field of View | H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele) | | H: 87.6° / V: 46.4° / D: 104.5° | | H: 113.74° / V: 61.5° / D: 134.45° | |
| Pan / Tilt / Rotate Range | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | | | | | |
| IR Viewable Length | 20m (65.62ft) | | | | | |
| Day & Night | Auto (ICR) | | | | | |
| Wide Dynamic Range | 120dB | | | | | |
| Digital Noise Reduction | SSNR | | | | | |
| Digital Image Stabilization | - | | | | | |
| Analytics | Intelligent analytics | | | | | |
| Business Intelligence | - | | | | | |
| Alarm I/O | 1 / 1 | | | | | |
| Audio I/O | 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 | | | | | |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform | | | | | |
| Operating Temperature / Humidity | -10°C ~ +55°C (+14°F ~ +131°F) | | | | | |
| Certification | - | | | | | |
| Power Consumption | PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W, typical 5.1W | | PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W | | PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W | |
| Product Dimensions / Weight | Ø 119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705lb) | | Ø 110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb) | | Ø 110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb) | |
| Additional Features | Hallway View | | | | | |

Q mini


QND-6021
2MP Dome Camera

Q mini


QND-6011
2MP Dome Camera

QNV-7082R
4MP IR Vandal Dome Camera

| | | | |
|-----------------------------------|---|---|--|
| Imaging Device | 1/2.8" CMOS | 1/2.8" CMOS | 1/3" CMOS |
| Resolution / Max. Frame Rate | 2MP / 30fps | 2MP / 30fps | 4MP / 30fps |
| Min. Illumination | Colour : 0.03Lux (F1.6) | Colour : 0.03Lux (F2.0) | Colour : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On) |
| Video Out | - | - | CVBS 1.0 Vp-p |
| Focal Length (Zoom Ratio) | 4mm fixed | 2.8mm fixed | 3.2~10mm (3.1x) motorized varifocal |
| Angular Field of View | H : 87.6° / V : 46.4° / D : 104.5° | H : 113.74° / V : 61.5° / D : 134.45° | H : 98.6° (Wide) ~ 30.8° (Tele) V : 52.3° (Wide) ~ 17.3° (Tele) D : 115.7° (Wide) ~ 35.3° (Tele) |
| Pan / Tilt / Rotate Range | 0° ~ 350° / 0° ~ 69° / 0° ~ 355° | 0° ~ 350° / 0° ~ 69° / 0° ~ 355° | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° |
| IR Viewable Length | - | - | 30m (98.42ft) |
| Day & Night | Auto (Electrical) | Auto (Electrical) | Auto (ICR) |
| Wide Dynamic Range | | 120dB | |
| Digital Noise Reduction | | SSNR | |
| Digital Image Stabilization | | - | |
| Analytics | Intelligent analytics | Intelligent analytics | Intelligent analytics |
| Business Intelligence | People counting | People counting | - |
| Alarm I/O | - | - | 1 / 1 |
| Audio I/O | - | - | Line in / - |
| Video Compression | | H.265 / H.264, MJPEG | |
| WiseStream | | WiseStream II | |
| Streaming | | Up to 3 Profiles | |
| Edge Storage | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC 1slot 128GB |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform | ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform | ONVIF Profile S/G/T, SUNAPI (HTTP API) |
| Operating Temperature / Humidity | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -40°C ~ +55°C (-40°F ~ +131°F) / 0~95% RH * Start up should be done at -30°C or above |
| Certification | IP42, IK08 | IP42, IK08 | IP66, IK10 |
| Power Consumption | PoE : Max 4.8W, typical 2.8W | PoE : Max 4.8W, typical 2.8W | PoE : Max 11.4W, typical 8.5W 12VDC : Max 9.6W, typical 7.2W |
| Product Dimensions / Weight | Ø99 x 56mm (Ø3.9" x 2.2") 145g (0.320lb) | Ø99 x 56mm (Ø3.9" x 2.2") 145g (0.320lb) | Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb) |
| Additional Features | Super compact design, Hallway View | Super compact design, Hallway View | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line |



QNV-7032R
4MP IR Vandal Dome Camera



QNV-7022R
4MP IR Vandal Dome Camera



QNV-7012R
4MP IR Vandal Dome Camera



QNV-6082R/6082R1
2MP IR Vandal Dome Camera

| | | | | |
|-----------------------------------|---|--|--|--|
| Imaging Device | 1/3" CMOS | 1/3" CMOS | 1/3" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 4MP / 30fps | 4MP / 30fps | 4MP / 30fps | 2MP / 30fps |
| Min. Illumination | Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On) | Colour : 0.15Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On) | Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On) | Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED On) |
| Video Out | CVBS 1.0 Vp-p | | | |
| Focal Length (Zoom Ratio) | 6mm fixed focal | 4mm fixed focal | 2.8mm fixed focal | 3.2~10mm (3.1x) motorized varifocal |
| Angular Field of View | H: 49.0° / V: 27.6° / D: 55.6° | H: 78.2° / V: 41.2° / D: 92° | H: 78.2° / V: 41.2° / D: 92° | H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele) |
| Pan / Tilt / Rotate Range | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | | | |
| IR Viewable Length | 30m (98.42ft) | 25m (82.02ft) | 20m (65.62ft) | 30m (98.42ft) |
| Day & Night | Auto (ICR) | | | |
| Wide Dynamic Range | 120dB | | | |
| Digital Noise Reduction | SSNR | | | |
| Digital Image Stabilization | - | | | |
| Analytics | Intelligent analytics | | | |
| Business Intelligence | - | | | |
| Alarm I/O | 1 / 1 | | | |
| Audio I/O | Selectable (mic in/line in) / - | | | |
| Video Compression | H.265 / H.264, MJPEG | | | |
| WiseStream | WiseStream II | | | |
| Streaming | Up to 3 Profiles | | | |
| Edge Storage | Micro SD/SDHC/SDXC 1slot 128GB | micro SD/SDHC/SDXC 1slot 128GB | micro SD/SDHC/SDXC 1slot 128GB | micro SD/SDHC/SDXC |
| Application Programming Interface | ONVIF Profile S/G/T, SUNAPI (HTTP API) | ONVIF Profile S/G/T, SUNAPI (HTTP API) | ONVIF Profile S/G/T, SUNAPI (HTTP API) | ONVIF profile S/G/T, SUNAPI, Hanwha Vision Open Platform |
| Operating Temperature / Humidity | -40°C ~ +55°C (-40°F ~ +131°F) / 0~95% RH * Start up should be done at -30°C or above | -40°C ~ +55°C (-40°F ~ +131°F) / 0~95% RH * Start up should be done at -30°C or above | -40°C ~ +55°C (-40°F ~ +131°F) / 0~95% RH * Start up should be done at -30°C or above | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) |
| Certification | IP66, IK10 | IP66, IK10 | - | IP66, IK10 |
| Power Consumption | PoE: Max 10.7W, typical 8.1W 12VDC: Max 9.1W, typical 6.5W | | | |
| Product Dimensions / Weight | Ø120.3 x 91.7mm (Ø4.74" x 3.61"), 510g (1.124lb) | Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb) | Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb) | Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb) |
| Additional Features | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line | | | Hallway View |



QNV-6022R/6022R1
2MP IR Vandal Dome Camera



QNV-6012R/6012R1
2MP IR Vandal Dome Camera



QNV-6024RM
2MP IR Flat Camera



QNP-6320
2MP 32x Indoor PTZ Camera

| | | | | |
|-----------------------------------|--|--|--|--|
| Imaging Device | 1/2.8" CMOS | | | |
| Resolution / Max. Frame Rate | 2MP / 30fps | | | |
| Min. Illumination | Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.03Lux (F2.0) B/W : 0Lux (IR LED on) | Colour : 0.03Lux (F2.0) B/W : 0Lux (IR LED on) | Colour : 0.05Lux (F1.6, 1/30sec) BW : 0.005Lux (F1.6, 1/30sec) |
| Video Out | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p | - |
| Focal Length (Zoom Ratio) | 4mm fixed | 2.8mm fixed | 3.6mm fixed | 4.44~142.6mm(32x) zoom (digital 32x, total 1024x zoom) |
| Angular Field of View | H : 87.6° / V : 46.4° / D : 104.5° | H : 113.74° / V : 61.5° / D : 134.45° | H : 94.8° / V : 49.3° / D : 114.3° | H : 64.66° (Wide)~2.29° (Tele) V : 38.08° (Wide)~1.30° (Tele) |
| Pan / Tilt / Rotate Range | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | ± 5° / 0° ~ 67° / ± 90° | 360° Endless / -105° (90° ~ -15°) |
| IR Viewable Length | 25m (82.02ft) | 20m (65.62ft) | 15m (49.21ft) | - |
| Day & Night | Auto (ICR) | | | |
| Wide Dynamic Range | 120dB | | | |
| Digital Noise Reduction | SSNR | SSNR | SSNR | SSNR V |
| Digital Image Stabilization | - | - | - | Support(built-in gyro sensor) |
| Analytics | Intelligent analytics | Intelligent analytics | Intelligent analytics | Analytics events - Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection |
| Business Intelligence | - | - | - | - |
| Alarm I/O | 1 / 1 | 1 / 1 | - | Input 4ea / Output 2ea |
| Audio I/O | Selectable (mic in/line in) | Selectable (mic in/line in) | Selectable (mic in/line in/built-in mic) / Line out | Selectable (mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max. output level: 1Vrms |
| Video Compression | H.265 / H.264, MJPEG | | | |
| WiseStream | WiseStream II | | Manual(5ea area), WiseStream II | |
| Streaming | Up to 3 Profiles | Up to 3 Profiles | Up to 3 Profiles | Up to 10 profiles |
| Edge Storage | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC 1 slot 256GB |
| 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 |
| Operating Temperature / Humidity | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F) | -30°C ~ +55°C (-22°F ~ +131°F) | -10° C ~ +55° C (14° F ~ +131° F) / 0~95% RH(Non-condensing) |
| Certification | IP66, IK10 | IP66, IK10 | IP66, IK10, NEMA4X | - |
| Power Consumption | PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W | PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W | PoE : Max 6.7W, typical 5W | PoE+ : Max 14.5W, typical 12W |
| Product Dimensions / Weight | Ø 120.3 x 91.7mm (Ø 4.74" x 3.61") 510g (1.124lb) | Ø 120.3 x 91.7mm (Ø 4.74" x 3.61") 510g (1.124lb) | W 98.9 x H 52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb) | ø 152x218mm(ø 5.98x8.58"), 1 700g(3.75lb) |
| Additional Features | Hallway View | Hallway View | M12 connector, Hallway View | Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection |



QNP-6320R
2MP 32x IR PTZ Camera



QNP-6320H
2MP 32x Outdoor PTZ Camera



QNP-6250
2MP 32x Outdoor PTZ Camera



QNP-6250R
2MP 25x IR PTZ Camera

| | | | | |
|-----------------------------------|---|---|--|---|
| Imaging Device | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 2MP / 60fps | 2MP / 60fps | 2MP / 60fps | 2MP / 60fps |
| Min. Illumination | Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED On) | 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: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED On) |
| Video Out | - | - | - | - |
| 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) | 4.44~111mm(25x) zoom (digital 32x, total 800x zoom) | 4.44~111mm(25x) zoom (digital 32x, total 800x 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: 64.66°(Wide)~2.99°(Tele) V: 38.08°(Wide)~1.68°(Tele) | H: 64.66°(Wide)~2.99°(Tele) V: 38.08°(Wide)~1.68°(Tele) |
| Pan / Tilt / Rotate Range | 360° Endless / -110° (90° ~ -20°) | 360° Endless / 105° (90° ~ -15°) | 360° Endless / 105° (90° ~ -15°) | 360° Endless / -110° (90° ~ -20°) |
| IR Viewable Length | 100m(328.08ft) | - | - | 100m(328.08ft) |
| Day & Night | Auto(ICR) | | | |
| Wide Dynamic Range | 120dB | | | |
| Digital Noise Reduction | SSNR V | | | |
| Digital Image Stabilization | Support(built-in gyro sensor) | | | |
| Analytics | Analytics events - Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection(Via optional I/O box SPM-4210) | | Analytics events - Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection | |
| Business Intelligence | - | - | - | - |
| Alarm I/O | Compatible with NWI/O Box (Optional: SPM-4210) | | Input 4ea / Output 2ea | Compatible with NWI/O Box (Optional: SPM-4210) |
| Audio I/O | Compatible with NWI/O Box (Optional: SPM-4210) | | Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms | Compatible with NWI/O Box (Optional: SPM-4210) |
| Video Compression | H.265/H.264: Main/High, MJPEG | H.265/H.264: Main/High, MJPEG | H.265/H.264: Main/High, MJPEG | H.265/H.264: Main/High, MJPEG |
| WiseStream | Manual(Sea area), WiseStream II | | | |
| Streaming | Up to 10 profiles | | | |
| Edge Storage | Micro SD/SDHC/SDXC 1slot Max. 256GB | Micro SD/SDHC/SDXC 1slot Max. 256GB | Micro SD/SDHC/SDXC 1slot Max. 256GB | Micro SD/SDHC/SDXC 1slot Max. 256GB |
| Application Programming Interface | ONVIF Profile S/G/T, SUNAPI(HTTP API) Hanwha Vision Open Platform | | | |
| Operating Temperature / Humidity | -35°C~+55°(-31°F~+131°F) * Start up should be done at above -30°C 0~100%RH(Condensing) Humidity control with AIR vent | -35°C~+55°(-31°F~+131°F) * 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) | -35°C~+55°(-31°F~+131°F) * Start up should be done at above -30°C 0~100%RH(Condensing) Humidity control with AIR vent |
| Certification | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X | - | IP66, IK10, NEMA4X |
| Power Consumption | PoE+: Max. 25.5W, typical 14.7W | PoE+: Max. 23W, typical 14W | PoE+: Max 14.5W, typical 12W | PoE+: Max. 25.5W, typical 14.7W |
| Product Dimensions / Weight | ø 158x293.3mm(ø 6.22x11.55"), 3100g(6.83lb) | ø 204.3x265mm(ø 8.04x10.43"), 2700g(5.95lb) | ø 152x218mm(ø 5.98x8.58"), 1700g(3.75lb) | ø 158x293.3mm(ø 6.22x11.55"), 3100g(6.83lb) |
| Additional Features | Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection(with NWI/O Box) | | | |



QNP-6250H
2MP 25x Outdoor PTZ Camera



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



QNB-6002
2MP Box Camera



QNF-9010
12MP Fisheye Camera



QNF-8010
6MP Fisheye Camera

| | | | | | |
|-----------------------------------|--|--|---|---|---|
| Imaging Device | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.8" CMOS | 1/2.3" CMOS | 1/1.8" CMOS |
| Resolution / Max. Frame Rate | 2MP / 60fps | 2MP / 30fps | 2MP / 30fps | 9MP / 30fps | 4MP / 30fps |
| 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: 0.01Lux (F1.2) | Colour: 0.39Lux (F2.2, 1/30sec) | Colour: 0.2Lux (F2.5) |
| Video Out | - | - | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p | CVBS 1.0 Vp-p |
| Focal Length (Zoom Ratio) | 4.44~111mm(25x) zoom (digital 32x, total 800x 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°(Wide)~2.99°(Tele) V: 38.08°(Wide)~1.68°(Tele) | H: 64.66° (Wide)~2.29° (Tele) V: 38.08° (Wide)~1.30° (Tele) | - | H: 187° / V: 187° / D: 187° | H: 187° / V: 187° / D: 187° |
| Pan / Tilt / Rotate Range | 360° Endless / -105° (90°~-15°) | 360° Endless / -105° (90°~-15°) | - | - | - |
| IR Viewable Length | - | - | - | - | - |
| Day & Night | Auto(ICR) | Auto(ICR) | Auto(ICR) | Auto(Electrical) | Auto(Electrical) |
| Wide Dynamic Range | 120dB | 120dB | 120dB | 120dB | 120dB |
| Digital Noise Reduction | SSNR V | SSNR V | SSNR | SSNR V | SSNR V |
| Digital Image Stabilization | Support(built-in gyro sensor) | Support(built-in gyro sensor) | - | - | - |
| Analytics | Analytics events -Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection(Via optional I/O box SPM-4210) | | Intelligent analytics | Defocus detection, Motion detection, Tampering | Intelligent analytics |
| Business Intelligence | - | - | - | People counting, Heatmap | People counting, Heatmap |
| Alarm I/O | Compatible with NW I/O Box (Optional: SPM-4210) | | 1 / 1. | - | - |
| Audio I/O | Compatible with NW I/O Box (Optional: SPM-4210) | | Line in / Line out | - | - |
| Video Compression | | | H.265, H.264, MJPEG | | |
| WiseStream | Manual(Sea area), WiseStream II | | WiseStream II | WiseStream II | WiseStream II |
| Streaming | Up to 10 profiles | | Up to 3 Profiles | Up to 3 profiles | Up to 3 profiles |
| Edge Storage | Micro SD/SDHC/SDXC 1slot Max. 256GB | micro SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC | micro SD/SDHC/SDXC | micro SD/SDHC/SDXC |
| Application Programming Interface | ONVIF Profile S/G/T SUNAPI(HTTP API) Hanwha Vision Open Platform | ONVIF Profile S/G/T SUNAPI(HTTP API) 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 | -35°C~+55°C(-31°F~+131°F) * Start up should be done at above -30°C 0~100%RH(Condensing) Humidity control with AIR vent | -35°C~+55°C(-31°F~+131°F) / * Start up should be done at above -25°C 0~95% RH(non-condensing) | -10°C~+55°C (-14°F~+131°F) | -10°C~+40°C (+14°F~+104°F) | -10°C~+55°C (+14°F~+131°F) |
| Certification | IP66, IK10, NEMA4X | IP66, IP67, IK10, NEMA4X | - | - | IP42 |
| Power Consumption | Max. 23W, Typ. 14W | Max. 23W, Typ. 14W | PoE: Max 6.4W, typical 4.6W 12VDC: Max 5.8W, typical 4.1W | PoE: Max 7.7W, typical 6.4W | PoE: Max 6.4W, typical 4.6W |
| Product Dimensions / Weight | ø 204.3x265mm(ø 8.04x10.43"), 2700g(5.95lb) | Ø227x299.2mm(8.94x11.78"), 5400g(11.93 lb) | W 73.8 x H 66.6 x D 136.2mm (2.91" x 2.62" x 5.36") 320g(0.71lb) | Ø99 x 49mm (Ø3.9" x 1.93") 370g(0.82lb) | Ø99 x 49mm (Ø3.9" x 1.93") 320g(0.705lb) |
| Additional Features | Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection(with NW I/O Box) | Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, SUS316L * Audio detection(with NW I/O Box) | Hallway View | Panorama view, Business Intelligence | Panorama view, Business Intelligence |



TNO-4050T
VGA Thermal Bullet Camera



TNO-4040T
VGA Thermal Bullet Camera

| | | |
|------------------------------------|---|---|
| Imaging Device | Uncooled micro bolometer (Spectral range: 8~14 μ m) | Uncooled micro bolometer (Spectral range: 8~14 μ m) |
| Resolution | 640x480(original), 640x360, 320x240 | 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/25fps(60Hz/50Hz) |
| NETD | < 50mK | < 50mK |
| Pixel Pitch | 17 μ m | 17 μ m |
| Focal Length | 35mm fixed focal | 19mm fixed focal |
| Angular Field of View | H: 17.2° / V: 13° / D: 22° (iFoV: 0.47 mRad) | H: 32° / V: 24.3° / D: 39.2° (iFoV: 0.895 mRad) |
| Min. Object Distance | 36m(118.11ft) | 11m(36.09ft) |
| Video Output | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation |
| Analytics | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection |
| Alarm I/O | Input 1ea / Output 2ea | 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) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms |
| Temperature Detect Range | - | - |
| Temperature Accuracy | - | - |
| Temperature Detection | - | - |
| Additional | - | - |
| WiseStream | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II |
| Streaming | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) |
| Edge Storage | Micro SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC 1slot 256GB |
| 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 |
| Memory | 1024MB RAM, 256MB Flash | 1024MB RAM, 256MB Flash |
| Operating Temperature/ Humidity | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH |
| Certification | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X |
| Power Consumption | PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W | PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W |
| Dimensions (WxHxD) / Weight | Φ101.97x401.8mm(4.01x15.82") / 3175g(7.01 lb) | Φ101.97x401.8mm(4.01x15.82") / 3175g(7.01 lb) |



TNO-4030T
VGA Thermal Bullet Camera



TNO-3010T
QVGA Thermal Bullet Camera

| | | |
|------------------------------------|--|--|
| Imaging Device | Uncooled micro bolometer (Spectral range: 8~14 μ m) | Uncooled micro bolometer (Spectral range: 8~14 μ m) |
| Resolution | 640x480, 640x360, 320x240 | 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/25fps(60Hz/50Hz) |
| NETD | < 50mK | < 60mK |
| Pixel Pitch | 17 μ m | 12 μ m |
| Focal Length | 13mm fixed focal | 2.7mm fixed focal |
| Angular Field of View | H: 48.6° / V: 36.4° / D: 61.6° (iFoV: 1.308 mRad) | H: 92.0° / V: 65.5° / D: 125.7° (iFoV: 1.308 mRad) |
| Min. Object Distance | 5m(16.40ft) | 0.3m(0.98ft) |
| Video Output | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation |
| Analytics | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection |
| Alarm I/O | Input 1ea / Output 2ea | 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) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms |
| Temperature Detect Range | - | - |
| Temperature Accuracy | - | - |
| Temperature Detection | - | - |
| Additional | - | - |
| WiseStream | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II |
| Streaming | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) |
| Edge Storage | Micro SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC 1slot 256GB |
| 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 |
| Memory | 1024MB RAM, 256MB Flash | 1024MB RAM, 256MB Flash |
| Operating Temperature/ Humidity | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH |
| Certification | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X |
| Power Consumption | PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W | PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W |
| Dimensions (WxHxD) / Weight | Φ101.97x401.8mm(4.01x15.82") / 3124g(6.89lb) | Φ147.51x375.3mm(5.80x14.77") / 2512g(5.54lb) |



TNO-3020T
QVGA Thermal Bullet Camera



TNO-3030T
QVGA Thermal Bullet Camera



TNO-3040T
QVGA Thermal Bullet Camera

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|------------------------------------|--|---|---|
| Imaging Device | Uncooled micro bolometer (Spectral range: 8~14 μ m) | Uncooled micro bolometer (Spectral range: 8~14 μ m) | Uncooled micro bolometer (Spectral range: 8~14 μ m) |
| Resolution | 320x240 | 320x240 | 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/25fps(60Hz/50Hz) | H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz) |
| NETD | <60mK | <60mK | <60mK |
| Pixel Pitch | 12 μ m | 12 μ m | 12 μ m |
| Focal Length | 4.7mm fixed focal | 13.7mm fixed focal | 19mm fixed focal |
| Angular Field of View | H:50.0°/ V:36.4°/ D:65.3° (iFoV: 2.73 mRad) | H:16.0°/ V:12.0°/ D:20.0° (iFoV: 2.73 mRad) | H:11.5°/ V: 8.7°/ D: 14.4° (iFoV: 2.73 mRad) |
| Min. Object Distance | 1m(3.28ft) | 8m(26.25ft) | 15m(49.21ft) |
| Video Output | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | | |
| Analytics | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection | | |
| Alarm I/O | Input 1ea / Output 2ea | Input 1ea / Output 2ea | 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) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms | Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms |
| Temperature Detect Range | - | - | - |
| Temperature Accuracy | - | - | - |
| Temperature Detection | - | - | - |
| Additional | - | - | - |
| WiseStream | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II |
| Streaming | Unicast(20 users) / MulticastMultiple 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/G/T SUNAPI(HTTP API) Hanwha Vision Open Platform | ONVIF Profile S/G/T SUNAPI(HTTP API) Hanwha Vision Open Platform |
| Memory | 1024MB RAM, 256MB Flash | 1024MB RAM, 256MB Flash | 1024MB RAM, 256MB Flash |
| Operating Temperature/ Humidity | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH |
| Certification | IP66, IK10, NEMA4X | IP66, IK10, 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 | PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W | PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W |
| Dimensions (WxHxD) / Weight | Φ147.51x375.3mm(58.07x147.76") / 2512g(5.538lb) | Φ147.51x375.3mm(58.07x147.76") / 2512g(5.538lb) | Φ147.51x375.3mm(5.81x14.78") / 2495g(5.50lb) |



TNO-3050T
QVGA Thermal Bullet Camera



TNO-L3030T
QVGA Thermal Bullet Camera



TNO-L4030T
VGA Thermal Bullet Camera

| | | | |
|------------------------------------|--|---|--|
| Imaging Device | Uncooled micro bolometer (Spectral range: 8~14 μ m) | Uncooled micro bolometer (Spectral range: 8~14 μ m) | Uncooled micro bolometer (Spectral range: 8~14 μ m) |
| Resolution | 320x240 | 320x240 | 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/MJPEG: Max. 8fps | H.265/H.264/MJPEG: Max. 8fps |
| NETD | <60mK | <60mK | <50mK |
| Pixel Pitch | 12 μ m | 12 μ m | 17 μ m |
| Focal Length | 35mm fixed focal | 13.7mm fixed focal | 13mm fixed focal |
| Angular Field of View | H: 6.3° / V: 4.7° / D: 7.8° (iFoV: 0.34 mRad) | H: 16.0° / V: 12.0° / D: 20.0° (iFoV: 0.87 mRad) | H: 48.6° / V: 36.4° / D: 61.6° (iFoV: 1.308 mRad) |
| Min. Object Distance | 51m | 8m(26.25ft) | 5m(16.40ft)" |
| Video Output | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | | |
| Analytics | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection | | |
| Alarm I/O | Input 1ea / Output 2ea | Input 1ea / Output 2ea | 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) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm Line out, Max.output level: 1Vrms | Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm |
| Temperature Detect Range | - | - | - |
| Temperature Accuracy | - | - | - |
| Temperature Detection | - | - | - |
| Additional | - | - | - |
| WiseStream | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II |
| Streaming | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) |
| Edge Storage | Micro SD/SDHC/SDXC 1 slot 256GB | Micro SD/SDHC/SDXC 1 slot 256GB | Micro SD/SDHC/SDXC 1 slot 256GB |
| 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 | ONVIF Profile S/G/T SUNAPI(HTTP API) Hanwha Vision Open Platform |
| Memory | 1024MB RAM, 256MB Flash | 1024MB RAM, 256MB Flash" | 1024MB RAM, 256MB Flash |
| Operating Temperature/ Humidity | -40° C ~ +60° C (-40° F ~ +140° F) / Less than 90% RH | -40° C to +60° C (-40° F to +140° F) / Less than 90% RH | -40° C ~ +60° C (-40° F ~ +140° F) / Less than 90% RH |
| Certification | IP66, NEMA4X | IP66, IK 10, NEMA4X | IP66, IK 10, NEMA4X |
| 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. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0 | PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W |
| Dimensions (WxHxD) / Weight | Φ147.51x401.3mm(5.81x15.79") / 2742g(6.05lb) | Φ147.51x375.3mm(58.07x147.76") / 2512g(5.538lb) | Φ101.97x401.8mm(4.01x15.82") / 3124g(6.89lb) |



TNO-4040TR
VGA Radiometric Thermal Camera



TNO-4030TR
VGA Radiometric Thermal Camera

| | | |
|------------------------------------|---|---|
| Imaging Device | Uncooled micro bolometer (Spectral range: 8~14 μ m) | Uncooled micro bolometer (Spectral range: 8~14 μ m) |
| Resolution | 640x480, 640x360, 320x240 | 640x480, 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/25fps(60Hz/50Hz) |
| NETD | < 50mK | < 50mK |
| Pixel Pitch | 17 μ m | 17 μ m |
| Focal Length | 19mm fixed focal | 13mm fixed focal |
| Angular Field of View | H: 32° / V: 24.3° / D: 39.2° (iFoV: 0.895 mRad) | H: 48.6° / V: 36.4° / D: 61.6° (iFoV: 1.308 mRad) |
| Min. Object Distance | 11m(36.09ft) | 5m(16.40ft) (iFoV: 1.308 mRad) |
| Video Output | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation | CVBS: 1.0 Vp-p / 75 Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation |
| Analytics | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection |
| Alarm I/O | Input 1ea / Output 2ea | Input 1ea / Output 2ea |
| Audio I/O | Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm | Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm |
| Temperature Detect Range | -20°C~130°C(-4°F~266°F) | -20°C~130°C(-4°F~266°F) |
| Temperature Accuracy | $\pm 5^\circ\text{C}$ ($\leq 100^\circ\text{C}$), $\pm 20\%$ (>100°C) | $\pm 5^\circ\text{C}$ ($\leq 100^\circ\text{C}$), $\pm 20\%$ (>100°C) |
| Temperature Detection | 6 Quadrangle ROI zones, whole FoV area | 6 Quadrangle ROI zones, whole FoV area |
| Additional | Hybrid palettes, Spot temperature reading | Hybrid palettes, Spot temperature reading |
| WiseStream | Manual(5ea area), WiseStream II | Manual(5ea area), WiseStream II |
| Streaming | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) | Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles) |
| Edge Storage | Micro SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC 1slot 256GB |
| Application Programming Interface | ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform | ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform |
| Memory | 1024MB RAM, 256MB Flash | 1024MB RAM, 256MB Flash |
| Operating Temperature/ Humidity | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH |
| Certification | IP66, IK10, NEMA4X | IP66, IK10, NEMA4X |
| Power Consumption | PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W | PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W |
| Dimensions (WxHxD) / Weight | $\Phi 101.97 \times 401.8 \text{mm} (4.01 \times 15.82") / 3,175 \text{g} (7.01 \text{lb})$ | $\Phi 101.97 \times 401.8 \text{mm} (4.01 \times 15.82") / 3,124 \text{g} (6.89 \text{lb})$ |



TNV-7011RC
3MP Corner Mount Camera



TNV-8011C
5MP Corner Mount Camera



TNO-6322ER
2MP Explosion-proof IR Camera

| | | |
|-----------------------------------|--|--|
| Imaging Device | 1/2.8" CMOS | 1/2.8" CMOS |
| Resolution / Max. Frame Rate | 3MP / 30fps | 5MP / 30fps |
| Min. Illumination | Colour: 0.3 lux (F2.0, 1/30sec) B/W: 0 lux (F2.0, 1/30sec) | Colour: 0.1 lux (F2.3, 1/30sec) B/W: 0.02 lux (F2.3, 1/30sec) |
| Video Out | CVBS: 1.0 Vp-p | CVBS: 1.0 Vp-p, Micro USB Type B |
| Focal Length (Zoom Ratio) | 2.8mm fixed focal | 2.3mm fixed focal |
| Angular Field of View | H: 102° / V: 75° / D: 129° | H: 131° / V: 93.4° / D: 174° |
| Pan / Tilt / Rotate Range | - / 30° ~ 60° / - | - |
| IR Viewable Length | 10m(32.8ft) | - |
| Day & Night | Auto(ICR) | Auto(ICR) |
| Wide Dynamic Range | 120dB | 120dB |
| Digital Noise Reduction | SSNR V | SSNR |
| Digital Image Stabilization | Support | Support |
| Analytics | Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, Appear/Disappear, Audio detection, Face detection, Motion detection, Digital auto tracking, Sound classification, Shock detection | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection |
| Business Intelligence | - | - |
| Alarm I/O | 1 / 1 | 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, MJPEG | H.265, H.264, MJPEG |
| WiseStream | WiseStream II | WiseStream II |
| Streaming | Up to 10 profiles | Up to 3 profiles |
| Edge Storage | Micro SD/SDHC/SDXC 1slot 256GB | Micro SD/SDHC/SDXC 1slot 128GB |
| Application Programming Interface | SUNAPI(HTTP API) Hanwha Vision Open Platform | SUNAPI(HTTP API) Hanwha Vision Open Platform |
| Operating Temperature / Humidity | -10°C~+55°C(+14°F~+131°F) / Less than 90% RH | -10°C~+55°C(+14°F~+131°F) / Less than 95% RH |
| Certification | IP66, IP6K9K, IK 10+ | IP66, IP6K9K, IK 10 |
| Power Consumption | PoE: Max 12W, typical 10.1W, 12VDC: Max. 11W, typical 8.6W | PoE: Max 6.49W, typical 4.6W, |
| Product Dimensions / Weight | Ø295.5x113.5mm(11.6x4.47") / 2.1kg(4.63lb) | 170(W)x165(H)x78.8(D)mm(6.69x6.49x3.10") / 830g(1.83lb) |

| | |
|-----------------------------------|---|
| 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), 0Lux(IR LED on) |
| Video Out | - |
| Focal Length (Zoom Ratio) | 4.44~142.6mm(32x) zoom |
| Angular Field of View | H: 61.8°(Wide)~2.19°(Tele) / V: 36.2°(Wide)~1.24°(Tele) |
| Pan / Tilt / Rotate Range | - |
| IR Viewable Length | 70m (229.66ft) |
| Day & Night | Auto(ICR) |
| Wide Dynamic Range | 120dB |
| Digital Noise Reduction | SSNR V |
| Digital Image Stabilization | Support |
| Analytics | Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection* |
| Business Intelligence | - |
| Alarm I/O | Input 1ea / Output 1ea |
| 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/Baseline/High, MJPEG |
| WiseStream | Manual(5ea area), 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 |
| Operating Temperature / Humidity | 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 | IECEX, ATEX, KCs, KC, CE IP67, IK 10, PESO certified |
| Power Consumption | 24VAC: Max. 45W |
| Product Dimensions / Weight | 175(W)x242.5(H)x320(D)mm(6.89x9.59x12.59"), 11.5kg(25.35lb) |
| Additional Features | Stainless(SUS316L) housing, Built in wiper |

High performance NVR

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

Hanwha Vision's NVR allows recording and streaming of videos in high resolution and enhances efficiency of event and channel management. It also offers AI-based object detection and classification in addition to smart search.



Monitor sub channels without registering them all

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

Registered channel
Recording and monitoring

CAMERA A
Channel #01

Unregistered channel
Monitoring sub channels without recording

CAMERA A
Channel
#02

CAMERA A
Channel #03

CAMERA A
Channel #04

Using one channel on NVR
(can monitor up to 4CH)

Installation Wizard for easy auto recognition and setup

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



Local



Web





PRN-6400B4
64CH AI NVR



PRN-6400B4
64CH AI NVR



PRN-3200B4
32CH AI NVR



PRN-3200B2
32CH AI NVR



PRN-1600B2
16CH AI NVR

| OS | Linux | Linux | Linux | Linux | Linux |
|---------------------------|---|---|---|---|---|
| Supported Compression | H.265, H.264, MJPEG | | | | |
| Max. Recording Bit Rate | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degrade/ Rebuild : Up to 320 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degrade/ Rebuild : Up to 320 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degrade/ Rebuild : Up to 320 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degrade/ Rebuild : Up to 320 Mbps | Distributed mode : Up to 250 Mbps Normal mode : Up to 150 Mbps RAID mode : Up to 250 Mbps |
| Max # of Cameras | Max. 64CH | Max. 64CH | Max. 32CH | Max. 32CH | Max. 16CH |
| Network Camera Resolution | 32MP ~ CIF | 32MP ~ CIF | 32MP ~ CIF | 32MP ~ CIF | 32MP ~ CIF |
| HDD Slot | SATA 16ea(Max. 160TB, Non-RAID mode), Hot swap | SATA 16ea(Max. 160TB, Non-RAID mode), Hot swap | SATA 16ea(Max. 160TB, Non-RAID mode), Hot swap | SATA 8ea(Max. 80TB, Non-RAID mode) | SATA 8ea(Max. 80TB, Non-RAID mode) |
| 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), Bookmark | 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 | 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, FTP, SUNAPI Command, Shutdown | 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 HDD x 2 Array) | RAID-5/6(Array Size : 8 HDD x 2 Array) | RAID-5/6(Array Size : 8 HDD x 2 Array) | RAID-5/6(Single, 1 Array) | RAID-5/6(Single, 1 Array) |
| Hot Swap | Support | | | | |
| Network Viewer Software | SSM, Webviewer, WAVE, Wisenet Viewer, Wisenet, mobile Support CGI(SUNAPI) for integration to 3rd party VMS | | | | |
| Local Monitor | - Dynamic layout, Virtual channel view - Clone Mode : Up to 64 Division - Expand Mode : HDMI1 up to 36 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | - Dynamic layout, Virtual channel view - Clone Mode : Up to 64 Division - Expand Mode : HDMI1 up to 36 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | - Dynamic layout, Virtual channel view - Clone Mode : Up to 36 Division - Expand Mode : HDMI1 up to 36 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | - Dynamic layout, Virtual channel view - Clone Mode : Up to 36 Division - Expand Mode : HDMI1 up to 36 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | - Dynamic layout, Virtual channel view - Clone Mode : Up to 16 Division - Expand Mode : HDMI1 up to 16 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 |
| Network Camera Protocol | Wisenet, ONVIF | Wisenet, ONVIF | Wisenet, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF |
| Power Input | 100 ~ 240 VAC ± 10%; 50/60Hz (Dual SMPS) | 100 ~ 240 VAC ± 10%; 50/60Hz | 100 ~ 240 VAC ± 10%; 50/60Hz | 100 ~ 240 VAC ± 10%; 50/60Hz, 2.1A | 100 ~ 240 VAC ± 10%; 50/60Hz, 2.1A |
| Power Consumption | Max. 285W (972.5 BTU with HDD 16ea) | Max. 285W (972.5 BTU with HDD 16ea) | Max. 285W (972.5 BTU with HDD 16ea) | SUNAPI, ONVIF | Max. 205W (With 10TB HDDs 8EA) |
| PoE Budget | - | - | - | - | - |
| Additional Features | - | | | | |



XRN-6420DB4/B4
64CH NVR



XRN-6410DB4/6410B4
64CH NVR



XRN-6410RB2
64CH NVR



XRN-6410B2
64CH NVR

| | | | | |
|---------------------------|--|--|---|---|
| OS | Linux | Linux | Linux | Linux |
| Supported Compression | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG |
| Max. Recording Bit Rate | Distributed mode : Up to 520 Mbps Normal mode : Up to 300 Mbps {RAID mode} Normal : Up to 520 Mbps Degraded/ Rebuild : Up to 520 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degraded/ Rebuild : Up to 320 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degraded/ Rebuild : Up to 320 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps |
| Max of Cameras | Max. 64CH | Max. 64CH | Max. 64CH | Max. 64CH |
| Network Camera Resolution | 32MP ~ CIF | 32MP ~ CIF | 32MP ~ CIF | 32MP ~ CIF |
| HDD Slot | SATA 16ea(Max. 160TB, Non-RAID mode), Hot swap | SATA 16ea(Max. 160TB, Non-RAID mode), Hot swap | SATA 8ea(Max. 80TB, Non-RAID mode), Hot swap | SATA 8ea(Max. 80TB) |
| 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 | RAID-5/6 | RAID-5/6 | - |
| Hot Swap | Support | Support | Support | - |
| Network Viewer Software | SSM, Webviewer, Wave, Wisenet Viewer, Wisenet mobile, Support CGI(SUNAPI) for integration to 3rd party VMS | | | |
| Local Monitor | - Dynamic layout, Virtual channel view - Clone Mode : Up to 64 Division - Expand Mode : HDMI1 up to 36 Div. HDMI2 up to 32 Div.[Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | | | |
| Network Camera Protocol | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF |
| Power Input | 100 ~ 240 VAC ± 10%; 50/60 Hz, 2.7A (Dual SMPS) | 100 ~ 240 VAC ± 10%; 50/60 Hz, 2.7A (Dual SMPS) | 100 ~ 240 VAC ± 10%; 50/60 Hz, 1.7A (Single SMPS) | 100 ~ 240 VAC ± 10%; 50/60 Hz, 1.5A (Single SMPS) |
| Power Consumption | Max. 265W (904.2 BTU with HDD 16ea) | Max. 265W (904.2 BTU with HDD 16ea) | Max. 160W (with 10TB HDD 8EA) | Max. 138W (with 10TB HDD 8EA) |
| PoE Budget | - | - | - | - |
| Additional Features | <ul style="list-style-type: none"> N+1 failover supported AI search (BestShot, Attribute) <ul style="list-style-type: none"> - When integrated with Hanwha Vision AI cameras PTZ camera configuration and control Dual SMPS (6410DB4) Dynamic layout Virtual channel view Fisheye dewarping | <ul style="list-style-type: none"> N+1 failover supported AI search (BestShot, Attribute) <ul style="list-style-type: none"> - When integrated with Hanwha Vision AI cameras PTZ camera configuration and control Dual SMPS (6410DB4) Dynamic layout Virtual channel view Fisheye dewarping | <ul style="list-style-type: none"> N+1 failover supported AI search (BestShot, Attribute) <ul style="list-style-type: none"> - When integrated with Hanwha Vision AI cameras PTZ camera configuration and control Dynamic layout Virtual channel view Fisheye dewarping | <ul style="list-style-type: none"> N+1 failover supported AI search (BestShot, Attribute) <ul style="list-style-type: none"> - When integrated with Hanwha Vision AI cameras PTZ camera configuration and control Fisheye dewarping |



XRN-3220B4
32CH NVR



XRN-3210B4
32CH NVR



XRN-3210RB2
32CH NVR



XRN-3210B2
32CH NVR

| | | | | |
|---------------------------|---|--|--|--|
| OS | Linux | Linux | Linux | Linux |
| Supported Compression | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG |
| Max. Recording Bit Rate | Distributed mode : Up to 520 Mbps Normal mode : Up to 300 Mbps {RAID mode} Normal : Up to 520 Mbps Degradate/ Rebuild : Up to 520 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degradate/ Rebuild : Up to 320 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps {RAID mode} Normal : Up to 400 Mbps Degradate/ Rebuild : Up to 320 Mbps | Distributed mode : Up to 400 Mbps Normal mode : Up to 150 Mbps |
| Max of Cameras | Max. 32CH | Max. 32CH | Max. 32CH | Max. 32CH |
| Network Camera Resolution | 32MP ~ CIF | 32MP ~ CIF | 32MP ~ CIF | 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) |
| 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, User Event | Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event | Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event |
| Event Action | e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, 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, FTP, SUNAPI Command, Shutdown | e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown |
| External Storage | iSCSI | | | |
| RAID | RAID-5/6 | RAID-5/6 | RAID-5/6 | - |
| Hot Swap | Support | | | |
| Network Viewer Software | SSM, Webviewer, WAVE, Wisenet Viewer, Wisenet mobile, Support CGI(SUNAPI) for integration to 3rd party VMS | | | |
| Local Monitor | Dynamic layout, Virtual channel view Clone Mode : Up to 32 Division Expand Mode : HDMI1 up to 32 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | Dynamic layout, Virtual channel view Clone Mode : Up to 64 Division Expand Mode : HDMI1 up to 32 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | Dynamic layout, Virtual channel view Clone Mode : Up to 64 Division Expand Mode : HDMI1 up to 32 Div. HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9/ 13/ 16/ 25/ 36/ Sequence [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 |
| Network Camera Protocol | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF |
| Power Input | 100 ~ 240 VAC ± 10%; 50/60Hz, 2.7A (Single SMPS) | 100 ~ 240 VAC ± 10%; 50/60Hz, 2.7A (Single SMPS) | 100 ~ 240 VAC ± 10%; 50/60Hz, 1.7A (Single SMPS) | 100 ~ 240 VAC ± 10%; 50/60Hz, 1.5A (Single SMPS) |
| Power Consumption | Max. 265W (904.2 BTU with HDD 16ea) | Max. 265W (904.2 BTU with HDD 16ea) | Max. 160W (with 10TB HDD 8EA) | Max. 138W (with 10TB HDD 8EA) |
| PoE Budget | - | - | - | - |
| Additional Features | <ul style="list-style-type: none"> • N+1 failover supported • AI search (BestShot, Attribute) - When integrated with Hanwha Vision AI cameras <ul style="list-style-type: none"> • PTZ camera configuration and control <ul style="list-style-type: none"> • Dynamic layout • Virtual channel view • Fisheye dewarping | | | |



XRN-1620SB1
16CH NVR



XRN-1620B2
16CH NVR



XRN-820S
8CH NVR



XRN-815S
8CH NVR



XRN-420S
4CH NVR

| | | | | | |
|---------------------------|---|------------------------------|------------------------------|---|--|
| OS | Linux | Linux | Linux | Linux | Linux |
| Supported Compression | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG |
| Max. Recording Bit Rate | Max. 140Mbps | Max. 140Mbps | Max. 120Mbps | Max. 100Mbps | Max. 50Mbps |
| Max # of Cameras | Max. 16CH | Max. 16CH | Max. 8CH | Max. 8CH | Max. 4CH |
| Network Camera Resolution | 32MP ~ CIF | 32MP ~ CIF | 32MP ~ CIF | 12MP ~ CIF | 8MP ~ CIF |
| HDD Slot | SATA 4ea(Max. 24TB) | SATA 8ea(Max. 80TB) | SATA 2ea(Max. 12TB) | SATA 2ea(Max. 20TB) | 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 | | | | |
| Event Action | e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown | | | | |
| External Storage | - | - | - | - | - |
| RAID | RAID-1 | - | RAID-1 | - | - |
| Hot Swap | - | - | - | - | - |
| Network Viewer Software | WAVE, SSM, Webviewer, Wisenet Viewer, Wisenet Viewer, Wisenet mobile, Support CGI(SUNAPI) for integration to 3'rd party VMS | | | | |
| Local Monitor | Dynamic layout, Virtual channel view Clone mode : Up to 16 Division Expand mode : Up to 9 Division[Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | | | Clone Mode : Dynamic layout Expand Mode : HDMI1 Dynamic layout, HDMI2 up to 9 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | 1/ 2V/ 2H/ 3V/ 4/ Sequence [Web] 1/ 2V/ 2H/ 3V/ 4 |
| Network Camera Protocol | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF |
| Power Input | 100 ~ 240 VAC ± 10%; 50/60Hz | 100 ~ 240 VAC ± 10%; 50/60Hz | 100 ~ 240 VAC ± 10%; 50/60Hz | 100 ~ 240 VAC ± 10%; 50/60Hz | 100 ~ 240 VAC ± 10%; 50/60Hz |
| Power Consumption | Max. 310W | 130W | Max 160W | Max 165W (563 BTU with 2HDD, PoE On) | Max 67W(1HDD, PoE On) |
| PoE Budget | 200W | - | 100W | 100W | 50W |
| Additional Features | <ul style="list-style-type: none"> • PoE supported • N+1 failover supported • AI search (BestShot, Attribute) - When integrated with Hanwha Vision AI cameras <ul style="list-style-type: none"> • PTZ camera configuration and control | | | | |



XRN-426S-1T
4CH AI NVR



QRN-1630S
16CH NVR



QRN-830S
8CH NVR

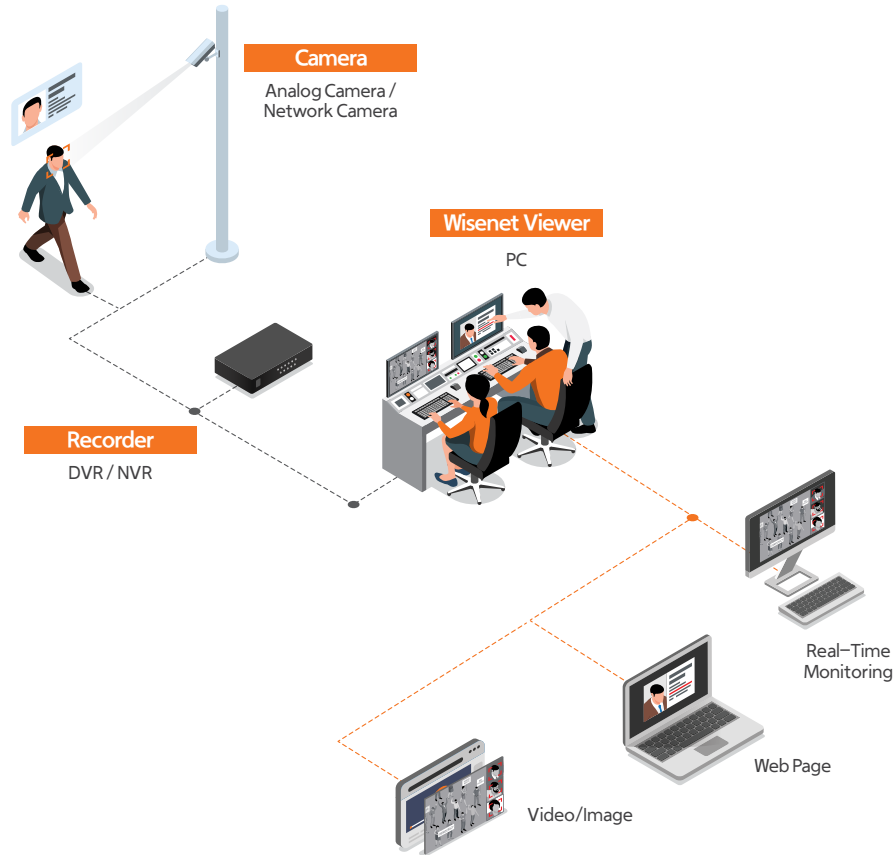


QRN-430S
4CH NVR

| | | | | |
|---------------------------|--|--|---|---|
| OS | Linux | Linux | Linux | Linux |
| Supported Compression | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG |
| Max. Recording Bit Rate | Max. 40Mbps | Max. 128Mbps | Max. 80Mbps | Max. 40Mbps |
| Max. of Cameras | Max. 4CH | Max. 16CH | Max. 8CH | Max. 4CH |
| Network Camera Resolution | 8MP ~ CIF | 8MP ~ CIF | 8MP ~ CIF | 8MP ~ CIF |
| HDD Slot | 1TB SSD included | 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 | AI Search: Object Attribute (When integrated with Hanwha Vision AI Cameras) | 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 | "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, Wisenet Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3rd party VMS | | | |
| Local Monitor | Dynamic layout, Virtual channel view, Up to 4 Div. [Web] 1/ 2H/ 2V/ 3V/ 4 | Clone Mode: Dynamic layout Expand Mode: HDMI1 Dynamic layout, HDMI2 up to 16 Div. [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | Dynamic layout [Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9 | 1/ 2V/ 2H/ 3V/ 4/ Sequence [Web] 1/ 2V/ 2H/ 3V/ 4 |
| Network Camera Protocol | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF |
| Power Input | 54VDC/1.67A | 100 ~ 240 VAC ± 10%; 50/60Hz | 54VDC / 1.55A | 100 ~ 240 VAC ± 10%; 50/60Hz |
| Power Consumption | Max 68W(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 | 50W | 130W | 65W | 35W |
| Additional Features | - | <ul style="list-style-type: none"> • PoE supported • N+1 failover supported • ARB (Auto Recovery Backup) redundancy supported • PTZ camera configuration and control • Easy configuration (Setup Wizard, P2P (QR Code)) | | |

Wisenet Viewer

Powerful NVR·DVR Management Software

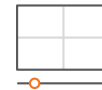


Available on Windows, macOS, Linux

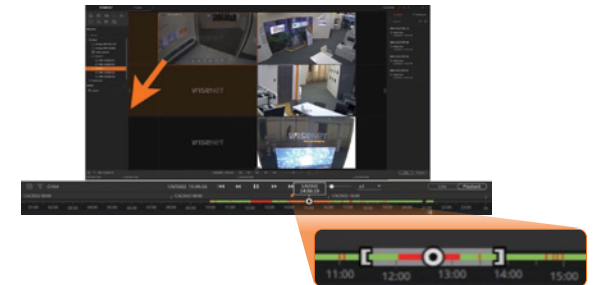
Monitoring with PC gets easier

- 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)

Effective monitoring with essential features



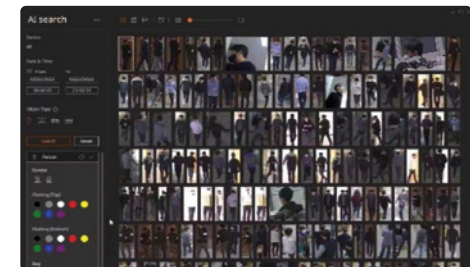
Customisable channel layout & Timeline



Easy monitoring with
Fisheye De-warping



Intelligent monitoring
powered by AI Search



Encoder



SPE-1630
16CH Encoder



SPE-420
4CH Encoder

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

Decoder



SPD-152
1 Monitor Decoder

| | |
|---------------------|--|
| Video Out | HDMI (2ea) |
| Resolution | HDMI# 1 up to 4K, HDMI# 2 up to 1080p |
| Display | Max. 64ch decoding Decoding performance : 8M@60fps, 2M@360fps |
| Power | Dual Power : 12VDC, PoE (IEEE802.3af) |
| Additional Features | Multi adapter for monitor back mount (VESA) |

Smart Network Interface (SNI)



SNI-1MC-PS



SNI-1PI-PS



SNI-1MC



SNI-1PI

| | Smart Network Interface (SNI) | | | |
|---------------------|---|--|---|--|
| Operating Temp | -40 to +75° C / -40 to +167° F | -40 to +75° C / -40 to +167° F | -40 to +75° C / -40 to +167° F | -40 to +75° C / -40 to +167° F |
| Storage Temp | -40 to +85° C / -40 to +185° F | -40 to +85° C / -40 to +185° F | -40 to +85° C / -40 to +185° F | -40 to +85° C / -40 to +185° F |
| RJ45 Ports | 1x 10/100/1000T(X) RJ45 with Auto MDI/MDI-X and 2 kV Isolation Protection | 2x 10/100/1000T(X) RJ45 with 2 kV Isolation Protection | 1x 10/100/1000T(X) RJ45 with Auto MDI/MDI-X and 2 kV Isolation Protection | 2x 10/100/1000T(X) RJ45 with 2 kV Isolation Protection |
| SFP Slot | 1x 100/1000FX SFP | - | 1x 100/1000FX SFP | - |
| Mains Power | 1x 3-Way Screw Terminal | 1x IEC C14 Socket with locking security bracket | 1x 2-way Screw Terminal | 1x 4-way Screw Terminal |
| Switch | 1x 4 Position DIP Switch | - | 1x 4 Position DIP Switch | - |
| Switch Functions | Link Fault Pass-Through Mode Remote Reset Mode Extended Distance Mode | - | Link Fault Pass-Through Mode Remote Reset Mode Extended Distance Mode | - |
| Housing Dimensions | Anodised Aluminium Anodised Aluminium 38 x 110 x 84 mm | Anodised Aluminium 65 x 88 x 107 mm | Anodised Aluminium 31 x 57 x 57 mm | Anodised Aluminium 37 x 88 x 107 mm |
| Installation | Wall Mount or DIN-Rail Optional Magnetic Mounts | Wall Mount or DIN-Rail | Wall Mount or DIN-Rail Optional Magnetic Mounts | Wall Mount or DIN-Rail |
| IP Rating | IP40 | | | |
| Input Voltage | 85-264VAC / 120-370VDC | 85-264VAC / 120-370VDC | - | - |
| Integrated PSU Type | 54VDC @ 90W | 54VDC @ 90W | - | - |
| Protection | Overload Current | Overload Current | Reverse Polarity, Overload Current | Reverse Polarity, Overload Current |

Wisenet WAVE

Video Management System

Intuitive and easy to use

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

An operating system to suit your needs

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



WAVE Sync

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



Desktop

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



Mobile

A mobile app designed for viewing Wisenet WAVE system video and 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 | | | |

Cloud

Wisenet WAVE Sync

A cloud-based service that can be remotely accessed by an unlimited number of authorised users from anywhere in the world.

Setup in Seconds

- Step 1: Create Wisenet WAVE Sync Account
- Step 2: Link your System to Wisenet WAVE Sync
- Step 3: Connect, view and manage from anywhere



Wisenet SSM

Ideal choice for integrated monitoring

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



AI video search

Connect Hanwha Vision AI cameras to SSM.

Best Shot search

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



Hanwha Vision SSM search

Support quick search using attributes



BestShot

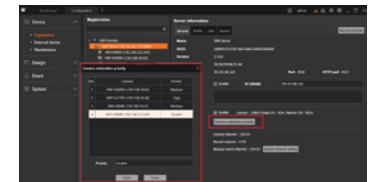
Object detection & classification (Person, face, vehicle, licence plate)

Stable monitoring

SSM provides safe and stable monitoring environment through Failover.

Vehicle management & event search

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



Cost Competitiveness

Impressive features that are cost-effective

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

High quality VMS features

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

Leverage features to improve operations

Highly versatile for different environments



WRN-2010S



WRN-2110B1



WRN-2110SB1

| | Edge Wave NVR | | |
|---------------------------|--|--|--|
| OS | Ubuntu 22.04 LTS | | |
| Supported Compression | H.265, H.264, MJPEG | | |
| Max. Recording Bit Rate | Max. 150Mbps | Max. 250Mbps | Max. 250Mbps |
| Max # of Cameras | Max. 16CH | Max. 36CH | Max. 36CH |
| Network Camera Resolution | 12MP - CIF | | |
| HDD Slot | SATA 2ea (Max. 20TB) | SATA 4ea (Max. 40TB) | SATA 4ea (Max. 40TB) |
| 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 |
| 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, User Event | 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 | 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 |
| Network Viewer Software | Supported by Wave client, mobile and Cloud Sync | Supported by Wave client, mobile and Cloud Sync | Supported by Wave client, mobile and Cloud Sync |
| Local Monitor | Yes (set-up only) | | |
| Network Camera Protocol | SUNAPI, ONVIF, RTSP | | |
| Power Input | 100 ~ 240 VAC ± 10%: 50/60 Hz | | |
| Power Consumption | 170W | 80W | 340W |
| PoE Budget | 8 PoE/PoE+ ports, with a total power budget of 100W | N/A | 16 PoE/PoE+ ports, with a total power budget of 200W |

IP Audio System

Amplifying your security systems to keep areas secure and clear.

 Motion Detection

 Please stay away from the fence



TTS
Text To Speech



PoE & PoE+
Dual Support +



SIP
PBX integration



Scheduler
Day, Week, Month and Year

IP Speakers



SPA-C100B / SPA-C100W
Ceiling Speaker



SPA-P100B/SPA-P100W
Pendant speaker



SPA-W100B / SPA-W100W
Wall speaker



SPA-H100B/SPA-H100W
Horn speaker

| | | | | |
|---------------------------|---|-------------|-------------|--------------|
| Amplifier | Built in 10W Class D | | | |
| Ethernet | 10/100 Base-T | | | |
| Internal Memory | 1 GBytes | | | |
| Max. Sound Pressure Level | 100dB | 101dB | 101dB | 125dB |
| Frequency Range (-10dB) | 120Hz~20kHz | 130Hz~20kHz | 120Hz~20kHz | 650Hz~5.3kHz |
| Sensitivity (1Watt) | 90dB | 91dB | 91dB | 111dB |
| Power | PoE/ PoE+ | | | |
| TTS | Korean, English(US, UK), German, French, Spanish, Russian | | | |

IP Audio Module



SPA-D1000
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 | 100/1000 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-M1000
SIP Microphone

| | |
|---------------------|--|
| Mic input Level | 100/1000 Base-T |
| Supported Protocols | IPv4, HTTP, HTTPS, SIP, mDNS, DNS, NTP, TCP, UDP, DHCP, ARP, ICMP |
| Power | Max. 10W, DC24V PoE (IEEE 802.3 af type 1 Class 3) |



HCB-7000A
QHD Box Camera



HCO-7070RA
QHD IR Bullet Camera



HCO-7010RA/20RA/30RA
QHD IR Bullet Camera



HCD-7070RA
QHD IR Dome Camera



HCD-7010RA/20RA/30RA
QHD IR Dome Camera

| Imaging Device | 1/3" CMOS | | | | |
|-----------------------------|---|--|--|--|--|
| Resolution | 2560 x 1440 | | | | |
| Min. Illumination | Colour : 0.16Lux (F1.2) B/W : 0.009Lux (F1.2) | Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on) | Colour : 0.26Lux (F1.8) (HCO-7010R) 0.27Lux (F2.0) (HCO-7020R/7030R) B/W : 0Lux (IR LED on) | Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on) | 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) | AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron) | AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron) | AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron) |
| Operating Temperature | -10°C ~ +55°C (+14°F ~ +131°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) |
| Certification | - | IP66, IK10 | IP66, IK10 | - | - |
| Power Consumption | 12VDC & 24VAC : Max 3.6W | 12VDC & 24VAC : Max 5.8W | 12VDC : Max 5W | 12VDC & 24VAC : Max 5.8W | 12VDC : Max 5W |
| Dimensions (WxHxD) / Weight | W 59.6 x H 68.4 x D 92.7mm (2.35" x 2.69" x 3.65") 186g (0.41lb) | 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 (0.53lb) |
| Additional Features | Video Transmission up to 500m (5C2V Coaxial Cable) | | | | |



HCV-7070RA
QHD IR Vandal Dome Camera



HCV-7010RA/20RA/30RA
QHD IR Vandal Dome Camera



HCB-6001
1080p HD Box Camera



HCB-6000
1080p HD Box Camera



HCO-6080R
1080p HD IR Bullet Camera

| | | | | | |
|-----------------------------|--|---|--|--|---|
| Imaging Device | 1/3" 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 fixed (HCV-7010R) 4.0mm fixed (HCV-7020R) 6.0mm fixed (HCV-7030R) | - | - | 3.2 ~ 10mm (3.1x) motorized varifocal |
| Angular Field of View | H: 93.48° (Wide) ~ 29.44° (Tele) V: 50.47° (Wide) ~ 16.64° (Tele) D: 112.53° (Wide) ~ 33.7° (Tele) | H: 107.48° / V: 59.67° / D: 122.01° (HCV-7010R) H: 78.22° / V: 41.21° / D: 87.91° (HCV-7020R) H: 49.01° / V: 27.61° / D: 55.6° (HCV-7030R) | - | - | H: 110.2° (Wide) ~ 32° (Tele) V: 55.4° (Wide) ~ 18° (Tele) D: 128.4° (Wide) ~ 36.6° (Tele) |
| Pan / Tilt / Rotate | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | - | - | - |
| IR Viewable Length | 30m (98.43ft) | 20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R) | - | - | 30m (98.43ft) |
| Day & Night | Auto (ICR) | | | | |
| 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 | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -10°C ~ +55°C (+14°F ~ +131°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F) |
| Certification | IP66, IK10 | IP66, IK10 | - | - | IP66, IK10 |
| Power Consumption | 12VDC & 24VAC : Max 5.8W | 12VDC : Max 5W | 12VDC & 24VAC : Max 6W | 12VDC & 24VAC : Max 3.5W | 12VDC & 24VAC : Max 5.8W |
| Dimensions (WxHxD) / Weight | Ø137 × 106.1mm (Ø5.39" × 4.18") 715g (1.58lb) | Ø120.3 × 91.7mm (Ø4.74" × 3.61") 510g (1.12lb) | W 130.9 × H 73.1 × D 67.2mm (5.15" × 2.88" × 2.65") 287g (0.63lb) | W 68.4 × H 59.6 × D 92.7mm (2.69" × 2.35" × 3.65") 186g (0.41lb) | Ø78 × 259.8mm (Ø3.07" × 10.23") (Without sunshield) 948g (2.09lb) |
| Additional Features | Video Transmission up to 500m (5C2V Coaxial Cable), Simple Focus (HCV-6080R, HCB-6001) | | | | |



HCO-6070R
1080p HD IR Bullet Camera



HCO-6020R
1080p HD IR Bullet Camera



HCD-6080R/6070R
1080p HD IR Dome Camera



HCD-6020R
1080p HD IR 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) |
| Focal Length | 3.2 ~ 10mm (3.1x) varifocal | 4mm fixed (F1.6) | 3.2 ~ 10mm (3.1x) motorized varifocal (HCD-6080R) varifocal (HCD-6070R) | 4mm fixed (F1.6) |
| Angular Field of View | H: 110.2° (Wide) ~ 32° (Tele) V: 55.4° (Wide) ~ 18° (Tele) D: 128.4° (Wide) ~ 36.6° (Tele) | H: 87.6° / V: 46.4° / D: 104.5° | H: 110.2° (Wide) ~ 32° (Tele) V: 55.4° (Wide) ~ 18° (Tele) D: 128.4° (Wide) ~ 36.6° (Tele) | H: 87.6° / V: 46.4° / D: 104.5° |
| Pan / Tilt / Rotate | - | - | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° |
| IR Viewable Length | 30m (98.43ft) | 30m (98.43ft) | 20m (65.62ft) | 20m (65.62ft) |
| 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 | - |
| 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) |
| Certification | IP66, IK10 | IP66 | - | - |
| 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 |
| Dimensions (WxHxD) / Weight | Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02lb) | Ø58.6 x 165.2mm (Ø2.31" x 6.5") (Without sunshield) 279g (0.62lb) | Ø119.8 x 98.5mm (Ø4.72" x 3.88") 330g (0.73lb) (HCD-6080R) 320g (0.71lb) (HCD-6070R) | Ø110 x 86mm (Ø4.33" x 3.39") 227g (0.71lb) |
| Additional Features | Video Transmission up to 500m (5C2V Coaxial Cable), Simple Focus (HCD-6080R only) | | | |



HCD-6010
1080p HD Dome Camera



HCV-6080R/6070R
1080p HD IR Vandal Dome Camera

| | | |
|-----------------------------|---|---|
| Imaging Device | 1/2.8" CMOS | |
| Resolution | 1920 x 1080 | |
| Min. Illumination | Colour: 0.27Lux (F2.0) B/W: 0.017Lux (F2.0) | Colour: 0.11Lux (F1.6) B/W: 0Lux (IR LED on) |
| Focal Length | 2.8mm fixed (F2.0) | 3.2~10mm (3.1x) motorized varifocal (HCV-6080R) varifocal (HCV-6070R) |
| Angular Field of View | H: 113.7° / V: 61.5° / D: 134.5° | H: 110.2° (Wide) ~ 32° (Tele) V: 55.4° (Wide) ~ 18° (Tele) D: 128.4° (Wide) ~ 36.6° (Tele) |
| Pan / Tilt / Rotate | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° | 0° ~ 350° / 0° ~ 67° / 0° ~ 355° |
| IR Viewable Length | - | 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 |
| Protocol | AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol) | AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol) |
| Operating Temperature | -10°C ~ +55°C (+14°F ~ +131°F) | -30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F) |
| Certification | - | IP66, IK10 |
| Power Consumption | 12VDC: Max 3.6W | 12VDC & 24VAC: Max 5.8W (HCV-6080R) 12VDC & 24VAC: Max 4.2W (HCV-6070R) |
| Dimensions (WxHxD) / Weight | Ø 110 x 86mm (Ø 4.33" x 3.39") 225g (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 (HCV-6080R only) | |



HRX-1635
16CH 8MP Pentabrid Recorder



HRX-1634
16CH 8MP Pentabrid Recorder



HRX-835
8CH 8MP Pentabrid Recorder



HRX-435
4CH 8MP Pentabrid Recorder



HRX-434
4CH 8MP Pentabrid Recorder

| | | | | | |
|---------------------|---|---|---|---|---|
| OS | Linux | Linux | Linux | Linux | Linux |
| Compression | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG | H.265, H.264, MJPEG |
| Signal Type | AHD(8MP, 5MP, 4MP, 1080p, 720p) HDTV I(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 – 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)" | "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 (Dual monitor) HDMI: 3840 x 2160, 2560x1440, 1920x1080, 1280x1024, 1280x720 VGA: 1920x1080, 1280x1024, 1280x720, 1024x768 | 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 | 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) / 1 Line out | 4 Line in / 1 Line out | 8 Line in (RCA 4 Line, Option: Audio Extension Cable) / 1 Line out | 4 Line in / 1 Line out | 4 Line in / 1 Line out |
| Alarm In/Out | In 16EA, Out 4EA – Relay Out 1(NO/NC/COM) – Relay Out 2~4(NO/COM) | In 16EA, Out 4EA – Relay Out 1(NO/NC/COM) – Relay Out 2~4(NO/COM) | In 8EA, Out 4EA – Relay Out 1(NO/NC/COM) – Relay Out 2~4(NO/COM) | In 4EA, Out 2EA – Relay Out 1(NO/NC/COM) – Relay Out 2(NO/COM) | In 4EA, Out 1EA – Relay Out 1(NO/NC/COM) |
| N/W Camera Support | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF | SUNAPI, ONVIF |
| Additional Features | - | - | - | - | - |

LED Monitor



SMT-4343
43" LED Monitor



SMT-3240
32" LED Monitor



SMT-3215
31.5" LED Monitor



SMT-2740
27" LED Monitor



SMT-2710
27" LED Monitor



SMT-2431
24" LED Monitor



SMT-2212
22" LED Monitor

| | | | | | | | |
|-----------------------|-----------------------|-----------------------|--------------------------------|--|--------------------------------|-----------------------|-----------------------|
| Screen Size | 43" | 32" | 31.5" | 27" | 27" | 24" | 22" |
| Max. Resolution | 3840 x 2160 | 3840 x 2160 | 1920* 1080, 60Hz (FHD) | 3840 x 2160, 60Hz (UHD) | 1920 x 1080, 60Hz (FHD) | 1920 x 1080 | 1920 x 1080 |
| Brightness | 300 cd/m ² | 300 cd/m ² | 300cd/m ² | 300 cd/m ² | 250 cd/m ² | 250 cd/m ² | 250 cd/m ² |
| Contrast Ratio | 1000:1 | 1000:1 | 4000:1 | 1200:1 | 4000:1 | 4000:1 | 3000 : 1 |
| Aspect Ratio | 16:9 | | | | | | |
| Viewing Angle(H/V) | 178° /178° | | | | | | |
| Response Time | 8.5ms | 14ms | 20ms | - | 6.5ms | 14ms | 6.5ms |
| Interface | HDMI (1), DP (1) | HDMI 2.0(1), DP1.2(1) | VGA(1), HDMI 1.4(1), DP 1.2(1) | HDMI 2.0(2), DP1.4(1), two windows PIP/PBP | 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 | -/- | 1/1 | -/- | -/- |
| Built-in Speakers | Yes | Yes | Yes | Yes | Yes | - | - |
| VESA Mount(mm) | 100* 100/400*200 | 100*100 | 100* 100 | 100* 100 | 100*100 | 100*100 | 100*100 |
| Power | 100V ~ 240V AC | 100V ~ 240V AC | 100V~240V AC | 100V~240V AC | 100V~240V AC | 100V ~ 240V AC | DC 12V 5A |
| Stand | Optional | Yes | Yes | Yes | Yes | Yes | Yes |
| Tempered Glass Screen | - | | | | | | |
| Additional Features | Remote Controller | - | - | - | - | - | - |

Controller



SPC-2010
PTZ / DVR System Controller






SPC-2001
PTZ / DVR System Controller



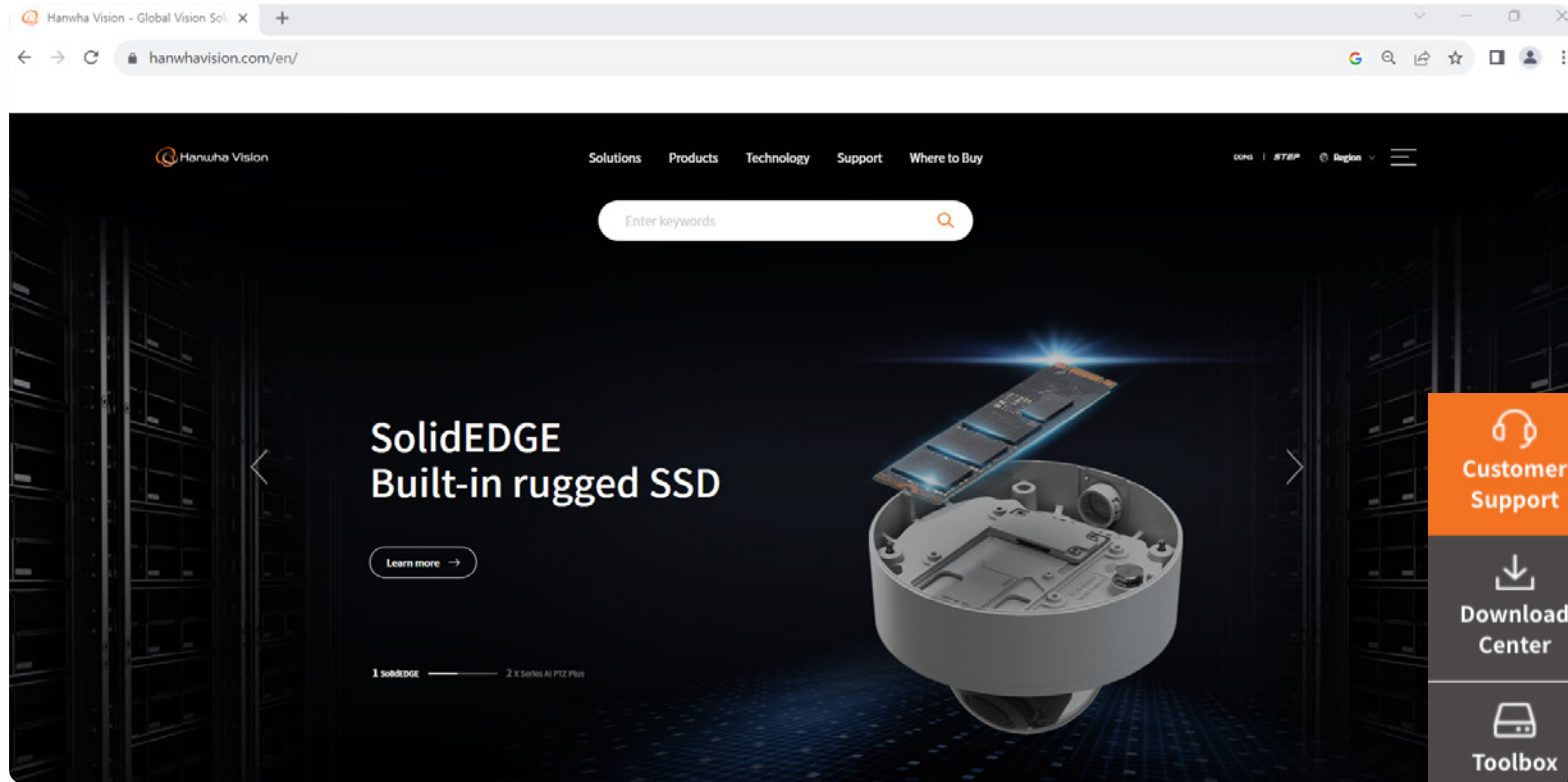
SPC-1010
PTZ Control Keyboard

| | | | |
|----------|--|--|---|
| Features | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> 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 | <ul style="list-style-type: none"> Control up to 255 PTZ Cameras Multi Protocols Supports OSD Menu, 3D Joystick Control 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 | | | W46 x H 60 x D 58.2mm (1.81" x 2.36" x 2.29") | 80g (0.17lb) |
| 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° | | | | Manual | Manual |
| SLA-M2890PN |  | | | | P-Iris | | | | | | | | | 82.1g (0.18lb) |

Toolbox Plus



Click Toolbox Plus on Hanwha Vision.com

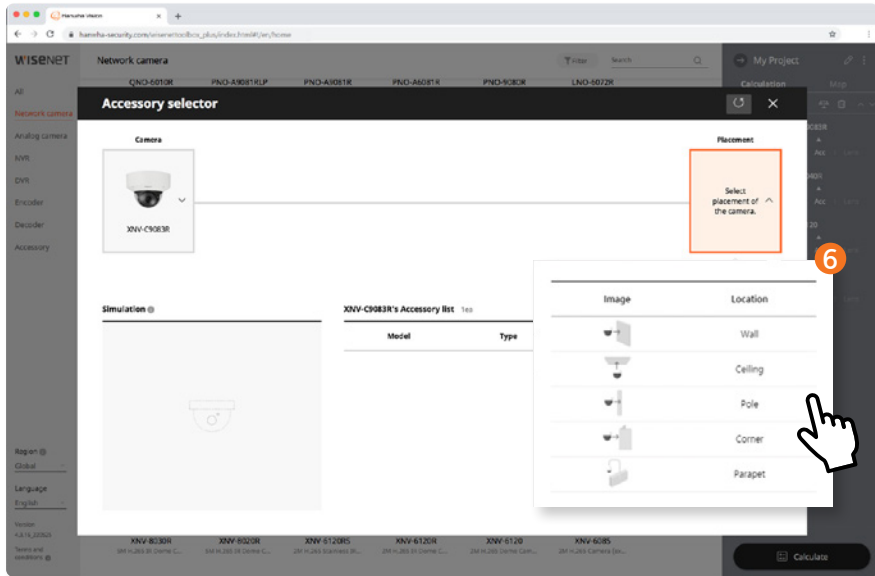
Or you can also connect by using below URL
(https://www.hanwhavision.com/wisenettoolbox_plus)

Choose a product

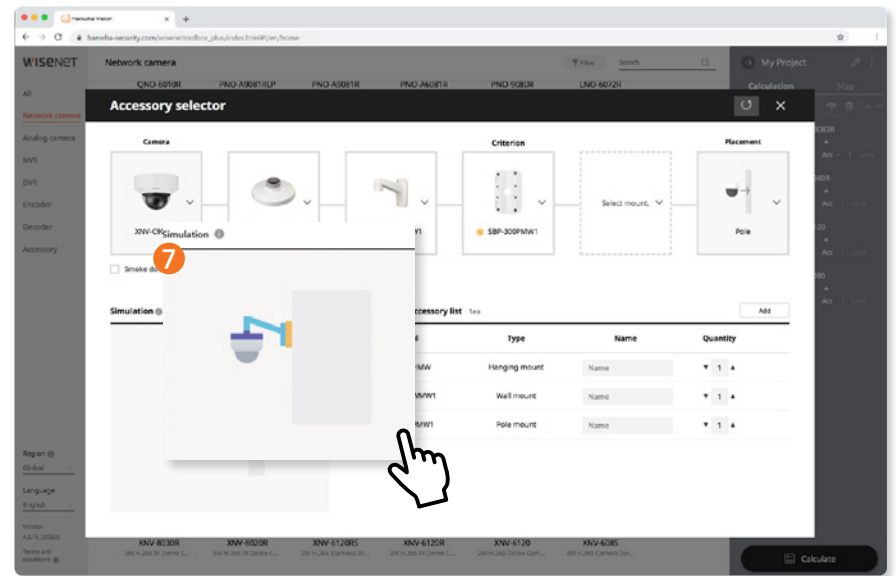
Select region and language

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

Click the Acc to find compatible accessories

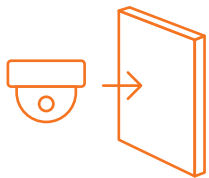


Accessory Selector pops up with all compatible accessories shown

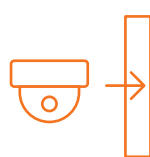


Choose accessories, then the simulation intuitively shows all connected accessories

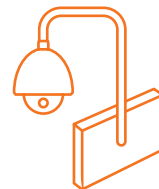
WM Wall mounts



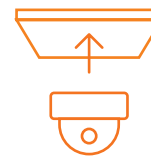
PM Pole mounts



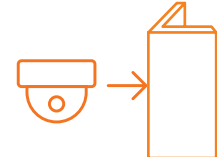
LM Parapet mounts



CM Ceiling mounts

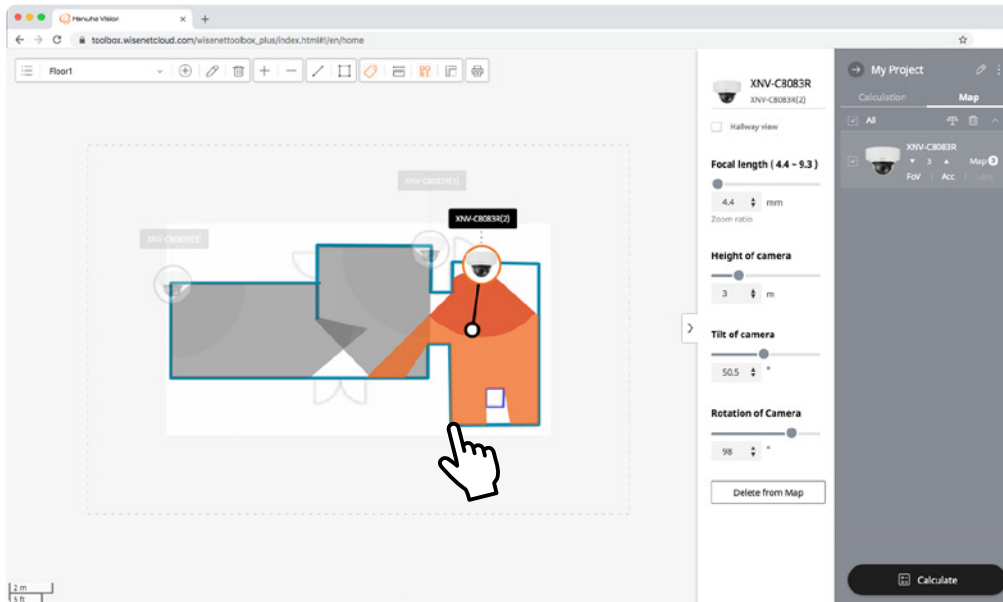
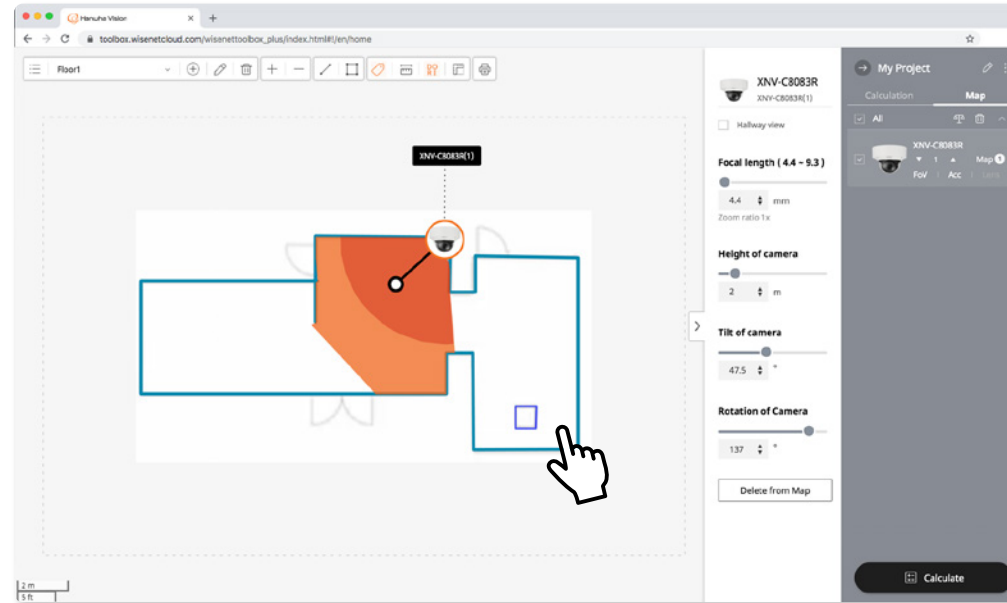


KM Corner mounts



Newly updated in Toolbox Plus: Simulate on the map

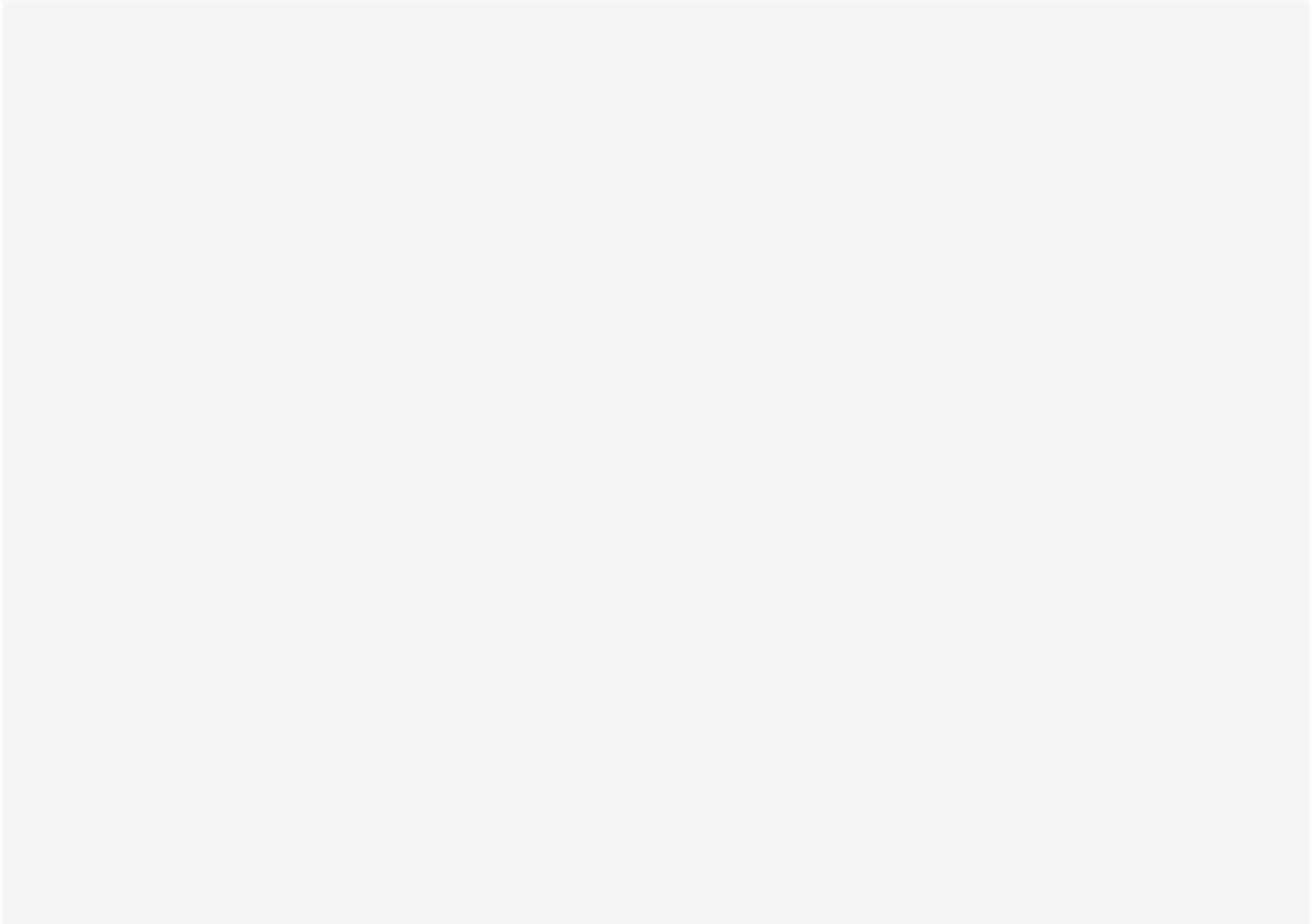
Toolbox Plus helps you simulate
the best place for installing cameras.



By uploading your map to
Toolbox Plus, you can test how
cameras cover your space

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

MEMO



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