



Excellence Through Innovation



wiseneT 7 lineup

4K XND-9082RV/9082RF, XNV-9082R, XNO-9082R, XNB-9002

6MP XND-8082RV/8082RF, XNV-8082R, XNO-8082R, XNB-8002

WISENET 7

Our chip built for your surveillance needs

Security requirements change and market trends evolve. One constant remains: the need for intelligent networked surveillance solutions – in every market, for any application.

At the heart of Hanwha Vision's new product development is the Wisenet 7 System on a Chip (SoC). Developed in-house and built in Korea, we're continually enabling new features and analytics.

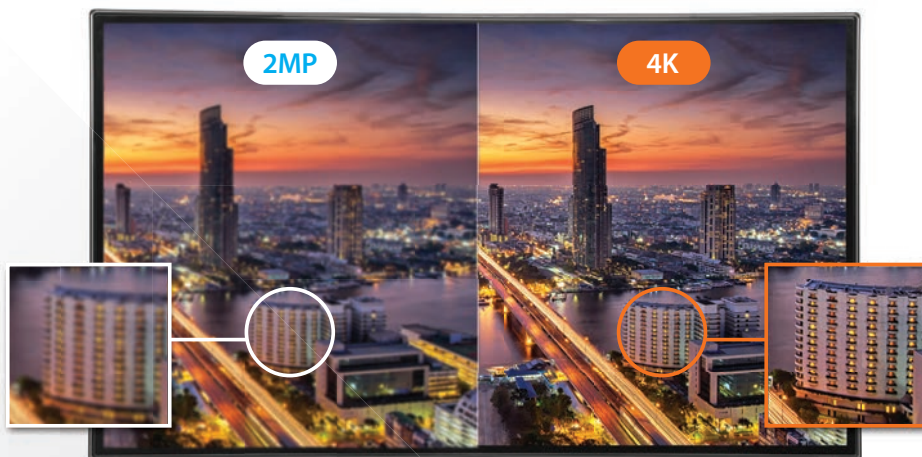
Wisenet 7 is our most technology-intensive, innovative and feature-rich SoC...proving the biggest ideas often have the smallest beginnings...

Hanwha Vision's Wisenet 7 SoC: Excellence through innovation in image quality, cybersecurity and analytics.

Enhanced Image Quality

Vivid 4K Resolution

Hanwha Vision's F1.2 varifocal lens is implemented into the Wisenet 7 4K camera lineup, allowing the most light into the camera's sensor and producing clear and vivid images.



Sharper images with enhanced noise reduction technology

Identify objects faster and easier, even in low-light environments. The Wisenet 7 camera line's enhanced noise reduction technology minimizes motion blur and image artifacts while increasing object sharpness and definition.



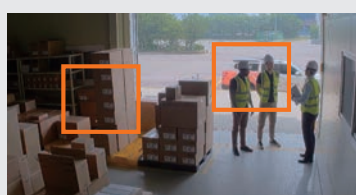
Extreme WDR with Scene Analysis technology

Hanwha Vision's improved multi-frame WDR technology lets you take full advantage of image contrast to see detailed objects clearly even in environments with strong backlight conditions.

Conventional



WISENET 7



Wisenet 7's Scene Analysis technology manages the dynamic range and tone of each frame allowing our extreme WDR technology to produce vivid and natural images unattainable with conventional WDR implementations.

Long Exposure



Short Exposure



**Tone Mapping /
Contrast Control**



Creates optimized WDR images

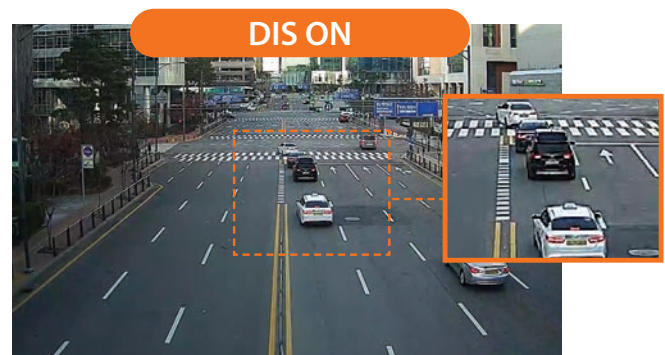
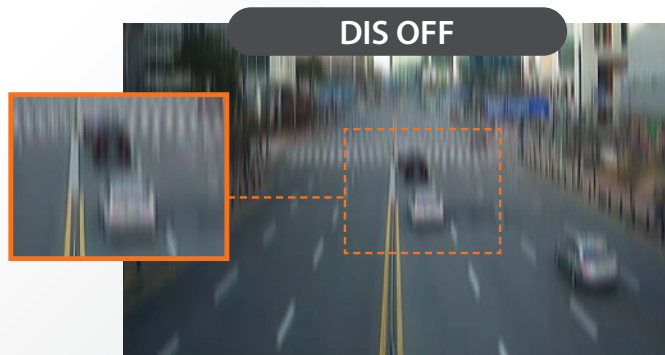
Realistic image reproduction with LDC

Wisenet 7's lens distortion correction technology produces natural-looking images without the distortion often created by conventional camera designs equipped with wide-angle lenses.



DIS with built-in gyro sensor

Wisenet 7's advanced image stabilization technology can reduce the motion blur caused by wind or vibration. A gyroscopic sensor plus DIS technology is specifically designed and engineered into select Wisenet 7 cameras resulting in sharp, stable images.



End-to-end Cybersecurity

System protection, built-in from the ground up

With its own device certificate issuing system, Root CA, the Wisenet 7 camera lineup offers the highest levels of cybersecurity possible. Secure by Default, Hanwha Vision's cybersecurity policy, embeds unique certificates into all products during each step of the development and manufacturing process. This results in a cybersecurity policy that satisfies stringent UL CAP standards as well as our own requirements for product reliability and design innovation.



User Convenience



Modular structure for easy installation

Wisenet 7 dome-style cameras use the proven modular design of our X series PLUS camera line to reduce time and cost.

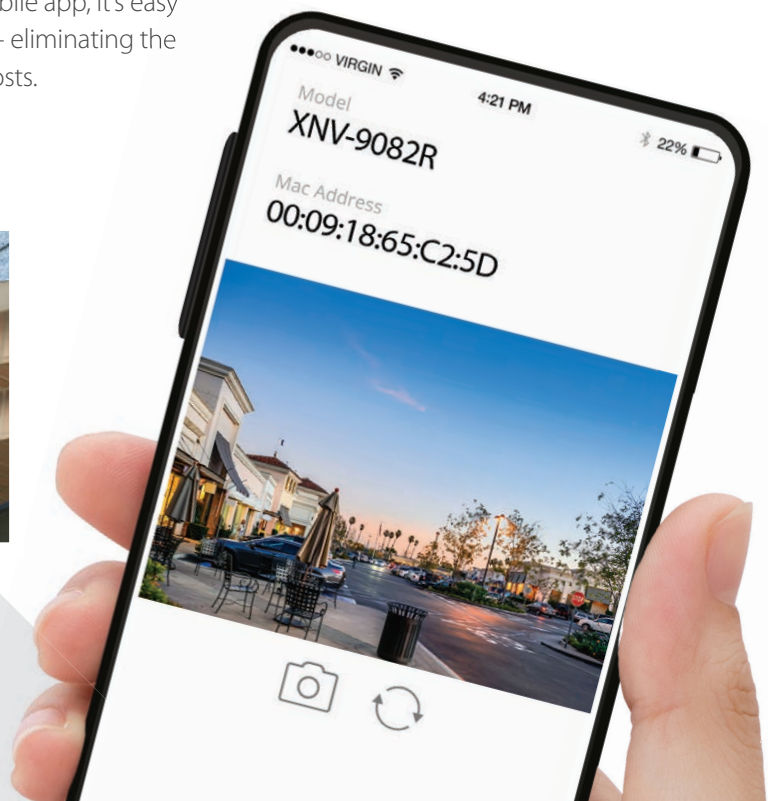
OSD vector graphic

Wisenet 7's use of vector graphics instead of traditional raster graphics lets you customize camera overlays with text and embedded logos for camera identification and branding.



USB and mobile app support

With a USB adapter and the free Wisenet Installation mobile app, it's easy to adjust a camera's angle and focus during installation – eliminating the need for additional devices, saving time and lowering costs.



Operational Efficiency

Reduce bandwidth using WiseStream II

Using Hanwha Vision's WiseStream II with H.265 compression technology, Wisenet 7 cameras achieve up to a 99% reduction in bandwidth and storage costs over the use of traditional H.264 compression alone without compromising live or recorded image quality.

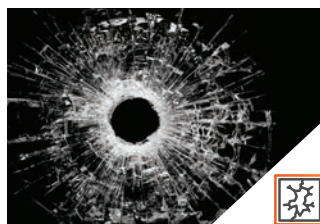


License-free intelligent video and audio analytics

The Wisenet 7 camera lineup features a variety of license-free video and audio analytics, providing enhanced monitoring and forensic review. Sound classification recognizes the sounds of gunshots, explosions, screams and broken glass for immediate response. Audio event playback allows a pre-recorded sound to provide audio talkdown to a specified analytic event.



Gunshot



Glass Break



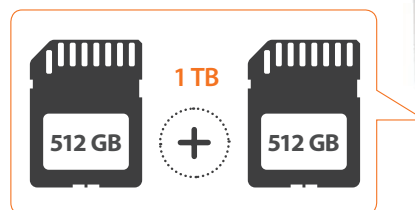
Scream



Explosion

Dual micro SD slots

With dual micro SD slots, you can save up to 1 TB of data automatically to the camera, keeping content safe in the event of network failure or instability.



Wisenet 7 4K Lineup



XNO-9082R



XNV-9082R

Imaging Device	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)
Video Output	Micro USB Type B	Micro USB Type B
Focal Length	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal
Angular Field of View	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°
IR Viewable Length	40m (131.23ft)	40m (131.23ft)
Day & Night	Auto (ICR)/Color/BW/ External/Schedule	Auto (ICR)/Color/BW/ External/Schedule
Wide Dynamic Range	extreme WDR	extreme WDR
Digital Noise Reduction	SSNRV	SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	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
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	4K/30fps	4K/30fps
WiseStream	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC 2slots(512GB)	Micro SD/SDHC/SDXC 2slots(512GB)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X
Power Consumption	PoE : typ 10.5W, max 12.95W 12VDC : typ 9.4W, max 12.5W 24VAC : typ 11.2W, max13.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W 24VAC : typ 11.0W, max13.5W
Dimensions (WxHxD / Weight)	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)



XND-9082RF



XND-9082RV



XNB-9002

1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux
Micro USB Type B	Micro USB Type B	Micro USB Type B
2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	-
H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	-
0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	None
40m (131.23ft)	40m (131.23ft)	None
Auto (ICR)/Color/BW/ External/Schedule	Auto (ICR)/Color/BW/ External/Schedule	Auto (ICR)/Color/BW/ External/Schedule
extreme WDR	extreme WDR	extreme WDR
SSNRV	SSNRV	SSNRV
Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection
People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
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) Supply voltage: 2.5VDC (4mA), Input impedance: 2K Ohm
H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
4K/30fps	4K/30fps	4K/30fps
WiseStream II	WiseStream II	WiseStream II
Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Micro SD/SDHC/SDXC 2slots(512GB)	Micro SD/SDHC/SDXC 2slots(512GB)	Micro SD/SDHC/SDXC 2slots(512GB)
ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH (non condensing)
IP52, Plenum rate, IK10	IP52, IK10	-
PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W	PoE: typ 8.2W, Max 12.95W 12VDC: typ 7.5W, Max 11.5W 24VAC: typ 8.9W, Max 13.5W
Ø205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	W81 x D165 x H67mm (W3.19" x D6.48" x H2.64") 0.88kg (1.94lb)

Wisenet 7 6MP Lineup



XNO-8082R



XNV-8082R

Imaging Device	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)
Video Output	Micro USB Type B	Micro USB Type B
Focal Length	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal
Angular Field of View	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°
IR Viewable Length	40m (131.23ft)	40m (131.23ft)
Day & Night	Auto (ICR)/Color/BW/ External/Schedule	Auto (ICR)/Color/BW/ External/Schedule
Wide Dynamic Range	extreme WDR	extreme WDR
Digital Noise Reduction	SSNRV	SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	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
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	6MP/30fps	6MP/30fps
WiseStream	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC 2slots(512GB)	Micro SD/SDHC/SDXC 2slots(512GB)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C	-50°C~+60°C (-58°F ~ +140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X
Power Consumption	PoE : typ 10.5W, max 12.95W 12VDC : typ 9.4W, max 12.5W 24VAC : typ 11.2W, max14.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W 24VAC : typ 11.0W, max13.5W
Dimensions (WxHxD / Weight)	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)



XND-8082RF



XND-8082RV



XNB-8002

1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux
Micro USB Type B	Micro USB Type B	Micro USB Type B
2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	-
H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	-
0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	None
40m (131.23ft)	40m (131.23ft)	None
Auto (ICR)/Color/BW/ External/Schedule	Auto (ICR)/Color/BW/ External/Schedule	Auto (ICR)/Color/BW/ External/Schedule
extreme WDR	extreme WDR	extreme WDR
SSNRV	SSNRV	SSNRV
Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent Video Analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection
People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
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) Supply voltage: 2.5VDC (4mA), Input impedance: 2K Ohm
H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
6MP/30fps	6MP/30fps	6MP/30fps
WiseStream II	WiseStream II	WiseStream II
Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Micro SD/SDHC/SDXC 2slots(512GB)	Micro SD/SDHC/SDXC 2slots(512GB)	Micro SD/SDHC/SDXC 2slots(512GB)
ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH (non condensing)
IP52, Plenum rate, IK10	IP52, IK10	-
PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W	PoE : typ 10.7W, max 12.95W 12VDC : typ 9.0W, max 11.5W	PoE: typ 8.2W, Max 12.95W 12VDC: typ 7.5W, Max 11.5W 24VAC: typ 8.9W, Max 13.5W
Ø205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	W81 x D165 x H67mm (W3.19" x D6.48" x H2.64") 0.88kg (1.94lb)

For more information visit us at
HanwhaVisionAmerica.com



Hanwha Vision America

500 Frank W. Burr Blvd. Suite 43 Teaneck, NJ 07666

Toll Free: +1.877.213.1222

Direct: +1.201.325.6920

Fax: +1.201.373.0124

www.HanwhaVisionAmerica.com

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