









XNO-9083R

4K AI IR Bullet Camera











- Maximum 4K resolution
- Color: 0.04 Lux (F1.3, 1/30 sec, 30IRE), 0 Lux (IR LED on)
- Maximum 30 fps (H.265/H.264)
- Maximum IR viewable length: WiseIR 50m (164.04 ft)
- Day & Night (ICR), extremeWDR (120 dB)
- WiseNR II (Based on AI engine), WiseStreamIII (Based on AI engine)
- DIS with built-in Gyro sensor
- Analytics events based on AI engine (NPU) : Object detection (Person/Face/Vehicle car, truck, bus, bicycle, motorcycle/License plate),

IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Intrusion)

- Analytics events: Defocus detection, Motion detection, Tampering, Fog detection Audio detection, Sound classification, Shock detection, Appear/Disappear
- Certification : IP66/IP67, NEMA4X, IK10

X series XNO-9083R



XNO-9083R

4K AI IR Bullet Camera







Specifications

Resolution 3840x2160. 3328x1872. 3072x1728. 2592x1944, 2688x1520, 1920x1080, 1600x1200, 1280x1024, 1280x760, 1280x760, 1024x768, 800x408, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 Max. Framerate H.265/H.2641-Max. 305ps;2f5ps(60Hz/SOHz) Min. Illumination Color: 0.04Lux[F1.3. 1/30sec, 30IRE] BW: 0.004Lux[F1.3. 1/30sec, 30IRE] BW: 0.004Lux[F1.3. 1/30sec, 30IRE]	Video	
1280x960.1280x720.102xx768,800x408,800x448,720x576,720x480,640x480,320x240 Max. Framerate H.265/H.264.Max. 30fps/25fps(60Hz/50Hz) MIDEC Max. 15fps/12fps(60Hz/50Hz) MIDEC Max. 15fps/12fps(60Hz) MI	Imaging Device	1/1.8" progressive CMOS
MJPEG: Max. 15fps/12fps(cOHz/SOHz) Min. Illumination Color: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE) BW: 0.004Lux(F1.3, 1/30sec, 30IRE) USB: Micro USB Type B, 1280x720 for installation Lens Focal Length (Zoom Ratio) 4.4-9.3mm(2.1x) motorized varifocal Max. Aperture Ratio F1.3(Wide) - F2.15(Tele) Angular Field of View H: 112.1*(Wide) - 47.5*(Tele) V: 58.0*(Wide) - 54.6*(Tele) D: 137.5*(Wide) - 54.6*(Tele) D: 137.5*(Wide) - 54.6*(Tele) O: 137.5*(Wide) - 54.6*(Tele) O: 137.5*(Wide) - 54.6*(Tele) D: 137.5*(Wide) - 54.6*(Tele) OPerational Camera Title Displayed up to 85 characters Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction Digital Insige Stabilization Digital Insige Stabilization Support(Built-in gyro sensor) Defog Support Motion Detection Bea. Bpoint Polygonal zones Privacy Masking 32ea. 4point Quadrangle zones - Color: Gray, Green, Red. Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/Stretch mode) Prefer shutter Control(Based on Al engine).	Resolution	
BW: 0.004Lux(F1.3. 1/30sec. 30RE), O.Lux(IR LED on)	Max. Framerate	
Lens Focal Length (Zoom Ratio)	Min. Illumination	
Focal Length (Zoom Ratio) A.4-9.3mm(2.1x) motorized varifocal Max. Aperture Ratio F1.3(Wide) - F2.15(Tele) Angular Field of View H: 112.1"(Wide)-47.5"(Tele) V: 58.0"(Wide)-26.6"(Tele) D: 137.5"(Wide)-54.6"(Tele) D: 137.5"(Wide)-54.6"(Tele) D: 137.5"(Wide)-54.6"(Tele) D: 137.5"(Wide)-54.6"(Tele) D: 137.5"(Wide)-54.6"(Tele) D: 137.5"(Wide)-54.6"(Tele) Min. Object Distance O.5m(1.64t) Focus Control Simple focus, Manual Lens Type P-iris(IR corrected) Operational Camera Title Displayed up to 85 characters Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on AI engine), SSNR V Digital Image Stabilization Support(built-in gyro sensor) Defog Support Motion Detection Bea, 8 point Polygonal zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2-1/12,000sec) Prefer shutter control(Based on AI engine)	Video Out	
Max. Aperture Ratio F1.3(Wide) ~ F2.15(Tele) Angular Field of View H: 112.1*(Wide)-47.5*(Tele) V: 58.0*(Wide)-26.6*(Tele) D: 137.5*(Wide)-54.6*(Tele) Min. Object Distance O.5m(1.64ft) Focus Control Simple focus, Manual Lens Type P-iris(IR corrected) Operational Camera Title Displayed up to 85 characters Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on Al engine), SSNR V Digital Image Stabilization Support(built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/Stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2-1/12,000sec) Prefer shutter control(Based on Al engine)	Lens	
Angular Field of View	Focal Length (Zoom Ratio)	4.4~9.3mm(2.1x) motorized varifocal
V': 58.0°(Wide)-26.6°(Tele) D: 137.5°(Wide)-54.6°(Tele) Min. Object Distance O.5m(1.64ft) Focus Control Simple focus, Manual Lens Type P-iris(IR corrected) Operational Camera Title Displayed up to 85 characters Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on Al engine), SSNR V Digital Image Stabilization Support(built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mossic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2-1/12,000sec) Prefer shutter control(Based on Al engine)	Max. Aperture Ratio	F1.3(Wide) ~ F2.15(Tele)
Focus Control Simple focus, Manual Lens Type P-iris(IR corrected) Operational Camera Title Displayed up to 85 characters Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on Al engine), SSNR V Digital Image Stabilization Support (built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2-1/12,000sec) Prefer shutter control(Based on Al engine)	Angular Field of View	V: 58.0°(Wide)~26.6°(Tele)
Derational Camera Title Displayed up to 85 characters Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on AI engine), SSNR V Digital Image Stabilization Support(built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2-1/12,000sec) Prefer shutter control(Based on AI engine)	Min. Object Distance	0.5m(1.64ft)
Operational Camera Title Displayed up to 85 characters Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on AI engine), SSNR V Digital Image Stabilization Support(built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control((Based on AI engine)	Focus Control	Simple focus, Manual
Camera Title Displayed up to 85 characters Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on AI engine), SSNR V Digital Image Stabilization Support(built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on AI engine)	Lens Type	P-iris(IR corrected)
Day & Night Auto(ICR) Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on Al engine), SSNR V Digital Image Stabilization Support (built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color : Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on Al engine)	Operational	
Backlight Compensation BLC, HLC, WDR, SSDR Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on Al engine), SSNR V Digital Image Stabilization Support(built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2-1/12,000sec) Prefer shutter control (Based on Al engine)	Camera Title	Displayed up to 85 characters
Wide Dynamic Range extremeWDR (120dB) Digital Noise Reduction WiseNR II (Based on AI engine), SSNR V Digital Image Stabilization Support (built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control (Based on AI engine)	Day & Night	Auto(ICR)
Digital Noise Reduction WiseNR II (Based on Al engine), SSNR V Digital Image Stabilization Support (built-in gyro sensor) Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on Al engine)	Backlight Compensation	BLC, HLC, WDR, SSDR
Digital Image Stabilization Support(built-in gyro sensor) Defog Support Motion Detection Bea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on Al engine)	Wide Dynamic Range	extremeWDR (120dB)
Defog Support Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on Al engine)	Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V
Motion Detection 8ea, 8point Polygonal zones Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on Al engine)	Digital Image Stabilization	Support(built-in gyro sensor)
Privacy Masking 32ea, 4point Quadrangle zones - Color: Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on Al engine)	Defog	Support
- Color : Gray, Green, Red, Blue, Black, White - Mosaic Gain Control Off / Max Gain / Manual White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on AI engine)	Motion Detection	8ea, 8point Polygonal zones
White Balance ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on AI engine)	Privacy Masking	- Color : Gray, Green, Red, Blue, Black, White
LDC Support (Fill/stretch mode) Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on AI engine)	Gain Control	Off / Max Gain / Manual
Electronic Shutter Speed Minimum / Maximum / Anti flicker (2~1/12,000sec) Prefer shutter control(Based on AI engine)	White Balance	ATW / Narrow ATW / AWC / Manual / Indoor / Outdoor
Prefer shutter control (Based on AI engine)	LDC	Support (Fill/stretch mode)
Video Rotation Flip, Mirror, Hallway view(90°/270°)	Electronic Shutter Speed	
	Video Rotation	Flip, Mirror, Hallway view(90°/270°)





Analytics	Classified object type: Person/Face/Vehicle/License plate Attributes: Vehicle(Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on Al 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)
Business Intelligence	Based on Al engine : People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports, DC 12V output(Max. 50mA)
Alarm Triggers	Analytics, Network disconnect, Alarm input, App event, Time schedule
Alarm Events	When alarm trigger occurred - File upload(image): e-mail/FTP - Notification: e-mail - Recording: SD/SDHC/SDXC or NAS recording at event triggers - Alarm output - Handover(PTZ preset, Send message by HTTP/HTTPS/TCP) - Audio clip playback
Audio In	Selectable(mic in/line in) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm
Audio Out	Line out, Max.output level: 1Vrms
IR Viewable Length	WiseIR 50m(164.04ft)
Network	
Ethernet	Metal shielded RJ-45(10/100/1000BASE-T)
Video Compression	H.265/H.264: Main/High, MJPEG
Audio Compression	G.711 u-law /G.726 Selectable G.726(ADPCM) 8KHz, G.711 8KHz G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps AAC-LC: 48Kbps at 16KHz
Smart Codec	Manual (5ea area), WiseStream II, WiseStream III (Based on Al engine)
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles, 3 virtual channel support)
Protocol	IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP (TCP, UDP Unicast)
Security	TPM 2.0 (FIPS 140-2 level 2) HTTPS(SSL) Login Authentication Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP, EAP-PEAP MSCHAPv2) Device Certificate(Hanwha Techwin Root CA, pre-installed) Secure by default certificate Secure OS/Boot/Storage, Verify firmware forgery
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
General	
Webpage Language	English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish,, Portuguese, Czech, Polish, Turkish, Dutch, Greek, Hungarian
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)
Memory	4GB RAM, 512MB Flash
Environmental & Electrical	
Operating Temperature / Humidity	-50°C~+55°C(-58°F ~ +131°F) NEMA TS 2(2.2.7.2): 74°C * Start up should be done at above -30°C less than 95%RH(non-condensing) Humidity control /w GORF vent

Humidity control /w GORE vent

Design and specifications are subject to change without notice. The latest product information / specification can be found at Hanwhavision.com

Hanwha Vision is formerly known as Hanwha Techwin.





Storage Temperature / Humidity	-50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH
Certification	IP66/IP67, NEMA4X, IK10
Input Voltage	PoE+(IEEE802.3at, Class4), 12VDC
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20.0W, typical 15.6W Power redundancy failover
Mechanical	
Color / Material	White / Aluminum Hard-coated window
RAL Code	RAL9003
Product Dimensions / Weight	Ø93.4x298.4mm(Ø3.68"x11.75"), 2200g(4.85 lb)
Compatible Conduit hole / Gangbox	3/4" (M25) single, double, 4" octagon, 4" square
Backbox	include
Certifications & Standards	
EMC	FCC 47 CFR 15 Subpart B Class A ICES-3(A)/NMB-3(A) CE/UKCA - EN 55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3
	VCCI CISPR 32 Class A RCM AS/NZS CISPR 32 Class A KS C 9832 Class A , KS C 9835
Safety	RCM AS/NZS CISPR 32 Class A
Safety Environment	RCM AS/NZS CISPR 32 Class A KS C 9832 Class A , KS C 9835 UL 62368-1, CAN/CSA C22.2 NO. 62368-1
,	RCM AS/NZS CISPR 32 Class A KS C 9832 Class A, KS C 9835 UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471 IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10 NEMA TS 2-2013 (2.2.7.2, 2.2.8, 2.2.9)
Environment	RCM AS/NZS CISPR 32 Class A KS C 9832 Class A, KS C 9835 UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471 IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10 NEMA TS 2-2013 (2.2.7.2, 2.2.8, 2.2.9)
DORI (EN62676-4 standard)	RCM AS/NZS CISPR 32 Class A KS C 9832 Class A, KS C 9835 UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471 IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10 NEMA TS 2-2013 (2.2.7.2, 2.2.8, 2.2.9) NEMA 250 type 4X
DORI (EN62676-4 standard) Detect (25PPM/ 8PPF)	RCM AS/NZS CISPR 32 Class A KS C 9832 Class A, KS C 9835 UL 62368-1, CAN/CSA C22.2 NO. 62368-1 IEC/EN 62471 IEC/EN 63000 IEC/EN 60529 IP66/IP67, IEC/EN 62262 IK10 NEMA TS 2-2013 (2.2.7.2, 2.2.8, 2.2.9) NEMA 250 type 4X Wide: 51.7m(169.64ft) / Tele: 174.5m(572.64ft)