



Network Bullet

# XNO-A6084R

## 2MP AI IR Bullet Camera



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CE



### Key Features

- 2.8~12mm (4.3x) motorized varifocal
- Dual NPU for AI-based Image enhancement
- Analytics events based on AI engine :  
Object detection (Person/Face/Vehicle/License plate),  
IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Intrusion),  
Slip&Fall detection, Face mask detection, Social distancing detection, Motion  
detection
- Business intelligence based on AI engine :  
People/Vehicle/Crowd counting, Queue management, Heatmap
- Support BestShot and full attributes
- Support Dynamic Privacy Masking
- extremeWDR, WiseNR II (Based on AI engine), WiseStream(Based on AI engine)
- WiseIR: IR viewable length 40 m (131.23 ft)
- IP66, IP67, NEMA4X, IK10
- NEMA TS-2 (2.2.7.2-8, 2.2.8, 2.2.9)
- Support Wisepower(Power monitoring, ECO mode)
- Device certificate(Hanwha Vision Root CA),  
Secure storage(Secure element with FIPS 140-3 level3/CC EAL6+ certified), SBOM

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## Specifications

### Video

<b>Imaging Device</b>	Size	1/2.8"
	Type	CMOS
<b>Resolution</b>		1920x1080, 1280x960, 1280x720, 1024x768, 800x600, 640x480, 640x360, 320x240, 320x180
<b>Max. Framerate</b>	H.265/H.264	60fps/50fps(60Hz/50Hz)
	MJPEG	30fps
<b>Min. Illumination (Lux)</b>	Color(1/30sec, 30IRE)	0.02
	BW(1/30sec, 30IRE)	0.002
<b>Video Out</b>		USB: Micro USB Type C

### Lens

<b>Focal Length (mm)</b>		2.8~12
<b>Zoom Ratio</b>	Optical	4.3x
<b>Max Aperture Ratio (F number)</b>	Wide	1.4
	Tele	3.6
<b>Angular Field of View</b>	Horizontal	120°~27°
	Vertical	63°~15°
	Diagonal	143°~32°
<b>Min. Object Distance</b>		0.5m(1.64ft)
<b>Focus Control</b>		Simple focus, Manual
<b>Lens Type</b>		P iris(IR corrected)

### Pan / Tilt / Rotate

<b>Pan / Tilt / Rotate Range</b>	Pan	0°~350°
	Tilt	0°~90°
	Rotate	0°~350°

### Operational

<b>Day &amp; Night</b>	Auto(ICR)
<b>Backlight Compensation</b>	BLC, HLC, WDR, SSDR

Design and specifications are subject to change without notice. The latest product information / specification can be found at [HanwhaVision.com](http://HanwhaVision.com)  
Hanwha Vision is formerly known as Hanwha Techwin.

## Operational

Wide Dynamic Range (dB)		150
Digital Noise Reduction		WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilization		Support
Defog		Support
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	32ea
	Shape	8point Polygonal zones
	Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
	Dynamic Privacy Masking: Color / Option	Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow
Gain Control		Off, Max gain, Manual
White Balance		ATW, NarrowATW, AWC, Manual, Indoor, Outdoor
LDC		Support(Fill/stretch mode)
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)
	Speed Range	2~1/40,000sec
Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Alarm Interface	In/Out	2 configurable I/O ports
	Others	Support extra alarm I/O via optional I/O box
Alarm Triggers		Analytics, Network disconnect, Alarm input, Time schedule, MQTT subscription, Day/Night, Storage disruption
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP/SFTP, File upload(video clip): FTP/SFTP, 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, MQTT: publication
Audio In		Selectable(mic in/line in)
Audio Out		Line out
Light Type		IR LED
Light Viewable Length	IR	WiseIR 40m(131.23ft)
IR Wavelength		850nm

## Analytics

Classified Object Type		Person, Face, Vehicle, License plate
Attributes	Person	Upper/Lower clothes color, Gender, Bag
	Vehicle	Type(car, bus, truck, motorcycle, bicycle), Color
	Face	Age, Gender, Face mask, Glasses
Thumbnail		BestShot

## Analytics

Analytics Events	Based on AI Engine	Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)
	Normal	Defocus detection, Tampering, Audio detection, Shock detection
Business Intelligence	Based on AI Engine	People counting, Queue management, Heatmap, Vehicle counting, Crowd counting

## Network

Ethernet	Metal shielded RJ-45(10/100BASE-T)	
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG	
Audio Compression	G.711(PCM): 8kHz(64kbps), G.726(ADPCM): 8kHz(16/24/32/40kbps), AAC-LC: 16kHz(48kbps), OPUS: 48kHz(64kbps)	
Smart Codec	WiseStream(Based on AI engine)	
Bitrate Control	H.265/H.264: CBR or VBR, MJPEG: VBR	
Streaming	Unicast	Up to 20 users
	Multicast	Support
	Multiple Streaming	Up to 5 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, SFTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, SMTP(StartTLS), Syslog	
Application Programming Interface	ONVIF	S, G, T, M
	Others	SUNAPI(HTTP API), Hanwha Vision Open Platform
Direct Cloud Connection	Support	

## Security

OS / Firmware Protect	Encrypted firmware, Secure boot, Signed firmware
User authentication	Digest authentication, Prevent brute-force attack
Network authentication	IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
Secure Communication	HTTPS, WSS(WebSocket Secure), SRTP
Access Control	IP-based access control, MAC-based access control, Auto logout
Data Protect	Encryption credentials, Encrypt compress for live recording file export
Audit	Access / System / Event Log management
Device ID	Device certificate(Hanwha Vision Root CA)
Secure Storage	SDcard partition encrypt(AES-256), Secure element
Supply Chain Security	SBOM
Security Certificate	Secure element(FIPS 140-3 level3, CC EAL6+), Consumer IoT Security Standard (ETSI EN 303 645)

## General

SoC	Type	Wisenet9
	Dual NPU	Support
Memory	RAM	4GB
	Flash	8GB eMMC
Edge Storage	Micro SD/SDHC/SDXC	Max. 1TB x 1slot
Edge Storage(OnCloud)	Micro SD/SDHC/SDXC	Max. 1TB x 1slot *Hanwha Vision branded microSD cards have been certified and recommended for OnCloud edge recording.

## Environmental & Electrical

Operating Condition	Temperature	-40°C~+60°C(-40°F~+140°F)
	Humidity	0~100% RH(condensing)
	Others	+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
Storage Condition	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
EPA(Effective Projected Area)		0.02m <sup>2</sup>
Input Voltage		PoE(IEEE802.3af, Class3)
Power Consumption	PoE	PoE: Max. 10.2W, typical 5.0W
Wisepower		Power monitoring, ECO mode

## Mechanical

Color	White
Material	Aluminum, PC(Polycarbonate), Hard-coated window
Material Management	RoHS(EU RoHS directive 2011/65/EU and IEC/EN 63000:2018), REACH(Regulation (EC) No. 1907/2006), Conflict mineral policy(Section 1502 of US Dodd Frank Act)
RAL Code	RAL9003
Product Dimensions	ø93.4x276.6mm(3.68x10.89")
Product Weight	1,660g(3.66lb)
Compatible Conduit Hole	Support conduit compatibility via optional adaptor
Compatible Gang Box	Single, Double, 4" Octagon, Square

## Certifications & Standards

EMC	FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(A), CE/UKCA - EN55032 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	UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471
Environment	IEC/EN 63000, IEC 60529 IP66, IEC 60529 IP67, IEC 62262 IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78

**DORI (EN62676-4 standard)**

<b>Detect (25PPM/ 8PPF)</b>	Wide	30.0m(98.43ft)
	Tele	138.5m(454.28ft)
<b>Observe (63PPM/ 19PPF)</b>	Wide	12.0m(39.37ft)
	Tele	55.4m(181.71ft)
<b>Recognize (125PPM/ 38PPF)</b>	Wide	6.0m(19.69ft)
	Tele	27.7m(90.86ft)
<b>Identify (250PPM/ 76PPF)</b>	Wide	3.0m(9.84ft)
	Tele	13.8m(45.43ft)

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**CAD**

**Unit:** mm [inch]

