Hanwha Vision

Network   Bullet

# XNO-A9084R

## 8MP AI IR Bullet Camera

EAC | c(UL)us LISTED | CE | FC

## Key Features

• 4.4~9.3mm (2.1x) motorized varifocal
• 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
• Business intelligence based on AI engine :
People/Vehicle/Crowd counting, Queue management, Heatmap
• Support BestShot and full attributes
• Support Dynamic Privacy Masking
• AI-based Image enhancement
• 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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8MP AI IR Bullet Camera

## Specifications

### Video

| Imaging Device | Size | 1/1.8" |
| --- | --- | --- |
| | Type | CMOS |
| Resolution | | 1280x960, 1280x720, 320x240, 2592x1944, 2688x1512, 640x360, 640x480, 320x180, 3072x1728, 800x600, 3328x1872, 3840x2160, 2560x1440, 1024x768, 1600x1200, 1920x1080 |
| Max. Framerate | H.265/H.264 | 30fps/25fps(60Hz/50Hz) |
| | MJPEG | 30fps(@8MP Max. 5fps) |
| Min. Illumination (Lux) | Color(1/30sec, 30IRE) | 0.04 |
| | BW(1/30sec, 30IRE) | 0.004 |
| Video Out | | USB: Micro USB Type C |

### Lens

| Focal Length (mm) | | 4.4~9.3 |
| --- | --- | --- |
| Zoom Ratio | Optical | 2.1x |
| Max Aperture Ratio (F number) | Wide | 1.3 |
| | Tele | 2.15 |
| Angular Field of View | Horizontal | 113°~47° |
| | Vertical | 58°~26° |
| | Diagonal | 138°~54° |
| Min. Object Distance | | 0.5m(1.64ft) |
| Focus Control | | Manual, Simple focus |
| Lens Type | | P iris(IR corrected) |

### Pan / Tilt / Rotate

| Pan / Tilt / Rotate Range | Pan | 0°~350° |
| --- | --- | --- |
| | Tilt | 0°~90° |
| | Rotate | 0°~350° |

### Operational

| Day & Night | Auto(ICR) |
| --- | --- |
| Backlight Compensation | BLC, SSDR, WDR, HLC |

## Operational

| Wide Dynamic Range (dB) | | 120 |
|---|---|---|
| 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 | Yellow, Green, Mosaic, Purple, White, Black, Gray, Blue, Red |
| | Dynamic Privacy Masking: Color / Option | Gray, Green, Red, Mosaic, Black, Blue, Yellow, White, Purple |
| Gain Control | | Off, Manual, Max gain |
| White Balance | | AWC, ATW, Manual, NarrowATW, Outdoor, Indoor |
| LDC | | Support(Fill/stretch mode) |
| Electronic Shutter | Mode | Prefer shutter control(Based on AI engine), Anti flicker, Maximum, Minimum |
| | Speed Range | 2~1/30,000sec |
| Video Rotation | | Hallway view(90°/270°), Flip, Mirror |
| Alarm Interface | In/Out | 2 configurable I/O ports |
| | Others | Support extra alarm I/O via optional I/O box |
| Alarm Triggers | | Time schedule, MQTT subscription, Analytics, Alarm input, Storage disruption, Day/Night, Network disconnect |
| Alarm Events When Alarm Trigger Occurred | | File upload(image): e-mail/FTP/SFTP, Audio clip playback, Alarm output, Notification: e-mail, Handover: PTZ preset, send message by HTTP/HTTPS/TCP, MQTT: publication, File upload(video clip): FTP/SFTP, Recording: SD/SDHC/SDXC or NAS recording at event triggers |
| 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 | | Face, Vehicle, Person, License plate |
|---|---|---|
| Attributes | Person | Gender, Bag, Upper/Lower clothes color |
| | Vehicle | Type(car, bus, truck, motorcycle, bicycle), Color |
| | Face | Gender, Face mask, Glasses, Age |
| Thumbnail | | BestShot |

## Analytics

| Analytics Events | Based on AI Engine | Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Motion detection, Social distancing detection, Virtual line(Crossing/Direction), Slip & fall detection, Object detection, Face mask detection |
|---|---|---|
| | Normal | Shock detection, Tampering, Defocus detection, Audio detection |
| Business Intelligence | Based on AI Engine | People counting, Heatmap, Queue management, 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 | 3 virtual channel support, Up to 5 profiles |
| Protocol | | ARP, RTP(UDP), IPv4, HTTPS, FTP, NTP, TCP/IP, DHCP, SMTP(StartTLS), RTCP, IPv6, UDP/IP, Bonjour, DNS, SNMPv1/v2c/v3(MIB-2), RTP(TCP), SSL/TLS, QoS, DDNS, IGMP, HTTP, SFTP, Syslog, UPnP, CDP, LLDP, MQTT, RTSP, ICMP, SRTP(TCP, UDP Unicast) |
| Application Programming Interface | ONVIF | M, T, G, S |
| | 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 | WSS(WebSocket Secure), HTTPS, SRTP |
| Access Control | IP-based access control, Auto logout, MAC-based access control |
| 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 | ETSI EN 303 645, Secure element(FIPS 140-3 level3, CC EAL6+) |

## General

| Memory | RAM | 4GB |
|---|---|---|
| | Flash | 8GB eMMC |
| Edge Storage | Micro SD/SDHC/SDXC | Max. 1TB x 1slot |

## 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), Humidity control with AIR vent, Start up should be done at above -30°C |
| Storage Condition | Temperature | -50°C~+60°C(-58°F~+140°F) |
| | Humidity | 0~90% RH(non-condensing) |
| EPA(Effective Projected Area) | | 0.02㎡ |
| Input Voltage | | PoE(IEEE802.3af, Class3) |
| Power Consumption | PoE | Max. 11.2W, typical 8.4W |
| Wisepower | | ECO mode, Power monitoring |

## Mechanical

| Color | | White |
|---|---|---|
| Material | | Aluminum, Hard-coated window |
| Material Management | Declaration | 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 | | 1,630g(3.59lb) |
| Compatible Conduit Hole | | Support conduit compatibility via optional adaptor |
| Compatible Gang Box | | 4" Octagon, Square, Single, Double |

## Certifications & Standards

| EMC | VCCI CISPR 32 Class A, FCC 47 CFR 15 Subpart B Class A, KS C 9832 Class A, KS C 9835, CE/UKCA - EN55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3, ICES-3(A)/NMB-3(A), RCM AS-NZS CISPR 32 Class A |
|---|---|
| Safety | UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471 |
| Environment | IEC/EN 63000, IEC 60529 IP66, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), IEC 60068-2-2, IEC 60068-2-27, IEC 60068-2-78, IEC 60068-2-1, IEC 60068-2-6, NEMA 250 type 4X, IEC 60068-2-14, IEC 60529 IP67, IEC 62262 IK10 |

## DORI (EN62676-4 standard)

| Detect (25PPM/ 8PPF) | Wide | 50.8m(166.77ft) |
|---|---|---|
| | Tele | 176.6m(579.49ft) |
| Observe (63PPM/ 19PPF) | Wide | 20.3m(66.71ft) |
| | Tele | 70.7m(231.80ft) |
| Recognize (125PPM/ 38PPF) | Wide | 10.2m(33.35ft) |
| | Tele | 35.3m(115.90ft) |
| Identify (250PPM/ 76PPF) | Wide | 5.1m(16.68ft) |
| | Tele | 17.7m(57.95ft) |

Hanwha Vision

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## CAD

Unit: mm [inch]

XNO-A9084R **8MP AI IR Bullet Camera**



Reference image

96.0 [3.77]
(SHIELD SUN)

160.44 [6.32]

⌀ 93.4 [3.68]
(BODY)

277.10 [10.91]

⌀ 147.1 [5.79]
(BACK BOX)

85.0 [3.35]
83.4 [3.28]
62.2[2.45]
46[1.81]

85.0 [3.35]
83.4 [3.28]
62.2[2.45]
46[1.81]

⌀ 140.47 [5.53]
(WALL MOUNT)
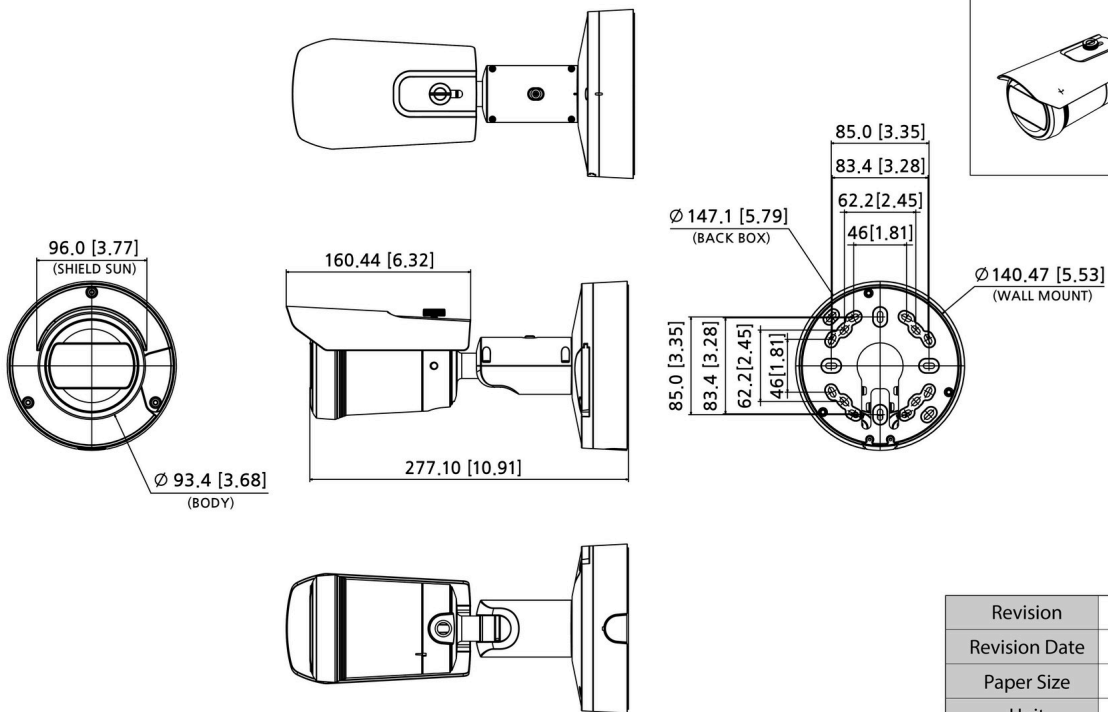
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| | |
|---|---|
| Revision | V1.0 |
| Revision Date | 25/04/28 |
| Paper Size | A0 |
| Unit | mm [inch] |
| Scale | 1 : 1 |