

Network

# PNM-C32084RQZ-8XE256G

## 4K AI, IR, PTRZ Multi-directional, Open Version with Jetson Orin 8GB Powered by the NVIDIA Jetson™ Platform

## Key Features

- Includes NVIDIA Jetson Orin NX 8GB up to 117 TOPS
- With 256GB SSD storage (Support additional M.2 SSD)
- Includes Jetpack 5.1 but supports 6.x and above.
- Base Camera Features:
  - 4.38~9.33mm (2.13x) motorized varifocal lenses
  - PTRZ (Pan, Tilt, Rotate, Zoom) control of each lens for easy installation and adjustment
  - 4-channels x 8MP@20fps (AI Off, H.265/H.264) / 4-channels x 8MP@15fps (AI ON, H.265/H.264)
  - WiseIR 25m (82.02ft) range
  - Classified object type: Person/Face/Vehicle/License plate; Attributes: Vehicle (Type: car/bus/truck/motorcycle/bicycle, Color), Person (clothing color)
  - BestShot image of detected objects
  - Hanwha WiseAI Analytics events based on AI engine:
    - Object detection
    - Virtual line (Crossing/Direction)
    - Virtual area (Loitering/Intrusion/Enter/Exit)

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

### Video

| | | |
|---|---|---|
| **Imaging Device** | Size | 1/1.8" |
| | Type | CMOS |
| **Resolution** | | 3840x2160, 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360 |
| **Max. Framerate** | H.265/H.264 | 15fps/15fps(60Hz/50Hz) |
| | MJPEG | 15fps(@8MP Max. 5fps) |
| | Others | Max. 20fps when AI off(MJPEG@8MP Max. 5fps) |
| **Min. Illumination (Lux)** | Color(1/30sec, 30IRE) | 0.07 |
| | BW(1/30sec, 30IRE) | 0.007 |

### Lens

| | | |
|---|---|---|
| **Focal Length (mm)** | | 4.38~9.33 |
| **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** | | 1.3m(4.27ft) |
| **Focus Control** | | Simple focus |
| **Lens Type** | | P iris |

### Pan / Tilt / Rotate

| | | |
|---|---|---|
| **Pan / Tilt / Rotate Range** | Pan | 0°~360° |
| | Tilt | 30°~90° |
| | Rotate | 0°~90° |
| | Others | Remote adjustment(Max. 200cycles) |

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## Operational

| | | |
|---|---|---|
| **Day & Night** | | Auto(ICR) |
| **Backlight Compensation** | | BLC, WDR, SSDR |
| **Wide Dynamic Range (dB)** | | 120 |
| **Digital Noise Reduction** | | WiseNR II (Based on AI engine), SSNR V |
| **Defog** | | Support |
| **Motion Detection** | Quantity | 8ea |
| | Shape | 8point Polygonal zones |
| **Privacy Masking** | Quantity | 6ea |
| | Shape | 4point Quadrangle zones |
| | Color / Option | Gray, Black, White |
| **Gain Control** | | Low, Middle, High |
| **White Balance** | | ATW, AWC, Manual, Indoor, Outdoor |
| **LDC** | | Support |
| **Electronic Shutter** | Mode | Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine) |
| | Speed Range | 1/5~1/12,000sec |
| **Video Rotation** | | Flip, Mirror, Hallway view(90°/270°) - Each channel separately |
| **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, App event, Time schedule, MQTT subscription, Case tampering |
| **Alarm Events When Alarm Trigger Occurred** | | File upload(image): e-mail/FTP,<br>Notification: e-mail,<br>Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output,<br>Handover: PTZ preset,send message by HTTP/HTTPS/TCP,<br>MQTT: publication |
| **Audio In** | | Support via optional I/O box |
| **Audio Out** | | Support via optional I/O box |
| **Light Type** | | IR LED |
| **Light Viewable Length** | IR | WiseIR 25m(82.02ft) |
| **IR Wavelength** | | 850nm |

## Analytics

| | | |
|---|---|---|
| **Classified Object Type** | | Person, Face, Vehicle, License plate |
| **Attributes** | Person | Upper/Lower clothes color |
| | Vehicle | Type(car, bus, truck, motorcycle, bicycle), Color |
| **Thumbnail** | | BestShot |
| **Analytics Events** | Based on AI Engine | Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) |
| | Normal | Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear) |

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## Network

| | | |
|---|---|---|
| **Ethernet** | | Metal shielded RJ-45(10/100/1000BASE-T) |
| **Video Compression** | | H.265/H.264: Main/High, MJPEG |
| **Smart Codec** | | Manual, WiseStreamIII |
| **Bitrate Control** | | H.265/H.264: CBR or VBR,<br>MJPEG: VBR |
| **Streaming** | Unicast | Up to 10 users |
| | Multicast | Support |
| | Multiple Streaming | Up to 3 profiles |
| **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, CDP, SRTP(TCP, UDP Unicast), MQTT |
| **Application Programming Interface** | ONVIF | S, G, T, M |
| | Others | SUNAPI(HTTP API), Hanwha Vision Open Platform |

## Security

| | |
|---|---|
| **OS / Firmware Protect** | Encrypted firmware, Secure boot, Signed firmware |
| **User authentication** | Digest authentication |
| **Network authentication** | IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2) |
| **Secure Communication** | HTTPS, WSS(WebSocket Secure) |
| **Access Control** | IP-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** | TPM(Trusted platform module), SDcard partition encrypt(AES-256) |
| **Security Certificate** | TPM 2.0 with FIPS 140-2 level2 |

## General

| | | |
|---|---|---|
| **Memory** | RAM | 8GB |
| | Flash | 8GB |
| **Edge Storage** | Micro SD/SDHC/SDXC | Max. 512GB x 2slot(Total 1TB) |
| **NVIDIA Carrier Board** | Supported Modules | NVIDIA Jetson Orin NX 8GB |
| | Storage | 256G SSD Included |
| | Others | Includes NVIDIA Jetpack SDK |

## Environmental & Electrical

| | | |
|---|---|---|
| **Operating Condition** | Temperature | -40°C~+55°C(-40°F~+131°F) |
| | Humidity | 0~100% RH(condensing) |
| | Others | Start up should be done at above -20°C, Humidity control with AIR vent |

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## Environmental & Electrical

| | | |
|---|---|---|
| **Storage Condition** | Temperature | -50°C~+60°C(-58°F~+140°F) |
| | Humidity | 0~90% RH(non-condensing) |
| **EPA(Effective Projected Area)** | | 0.046㎡ |
| **Input Voltage** | | PoE++(IEEE802.3bt type4, Class8) |
| **Power Consumption** | PoE | Max. 71W, typical 40W(Orin NX 16GB) |
| | Others | Max. 66W, typical 40W(Orin NX 8GB) |

## Mechanical

| | |
|---|---|
| **Color** | White |
| **Material** | Aluminum, PC(Polycarbonate), Hard-coated dome |
| **RAL Code** | RAL9003 |
| **Product Dimensions** | ø315x180mm(ø12.40x7.09") |
| **Product Weight** | 6,100g(13.45lb) |
| **Compatible Conduit Hole** | 19.1mm(3/4")(M25) |
| **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 62262 IK10, NEMA TS 2-2013 (2.2.7, 2.2.8, 2.2.9), NEMA 250 type 4X |

## 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) |

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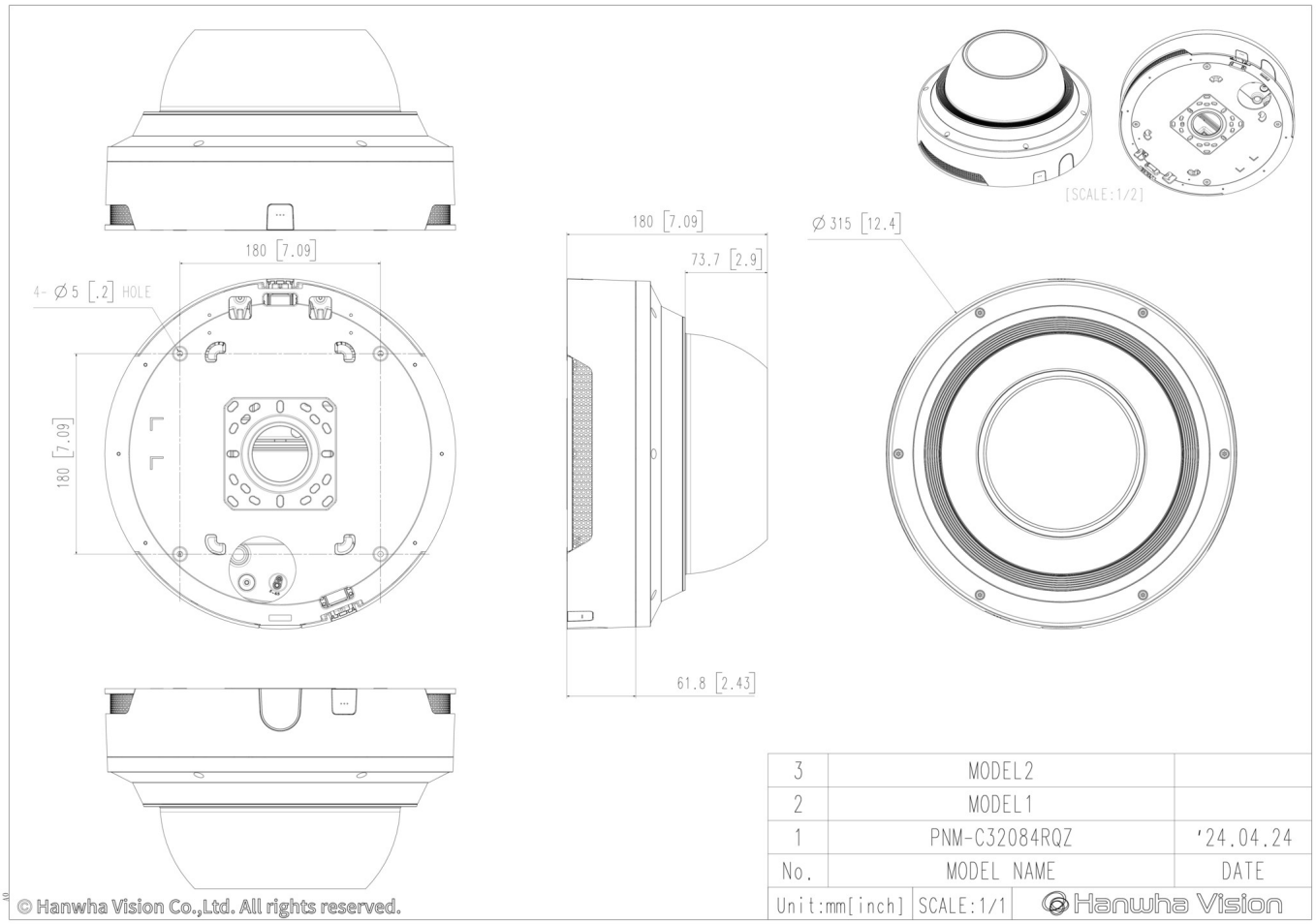
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## CAD

**Unit:** mm [inch]






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