Network Bullet

# QNO-C8013R

5MP AI IR Bullet Camera

## Key Features

- Max. 5MP resolution
- Color: 0.05Lux(F1.6, 1/30sec), BW: 0.005Lux(F1.6, 1/30sec, 30IRE)
- Maximum 30fps@5MP (H.265/H.264)
- IR viewable length 30m (98.42ft)
- Day & Night (ICR), WDR (120dB), WiseNR II (Using AI engine)
- H.265, H.264, MJPEG, WiseStreamIII (Using AI engine)
- Dynamic Privacy Masking (Person/Vehicle)
- Analytics events based on AI engine (NPU) :
- Object detection (Person/Vehicle - car, truck, bus, bicycle, motorcycle),
- Color Attribute, BestShot
- Motion detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)
- Hard-coated dome bubble/ IP66, IK10
- PoE: Max 8.1W

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5MP AI IR Bullet Camera

## Specifications

| Video | |
|---|---|
| Imaging Device | 1/2.8" CMOS |
| Resolution | 2592x1944, 2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 |
| Max. Framerate | H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) (WDR on/off)<br>MJPEG: Max. 30fps(@5MP Max. 5fps) |
| Min. Illumination | Color: 0.05Lux(F1.6, 1/30sec, 30IRE)<br>BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on) |
| Video Out | USB: Micro USB Type B, 1280x720 for installation |

| Lens | |
|---|---|
| Focal Length (Zoom Ratio) | 3.0mm fixed focal |
| Max. Aperture Ratio | F1.6 |
| Angular Field of View | H: 100°/ V: 73°/ D: 129° |
| Min. Object Distance | 0.5m (1.64ft) |
| Focus Control | Fixed |
| Lens Type | Fixed IRIS |
| Mount Type | M12 |

| Pan / Tilt / Rotate | |
|---|---|
| Pan / Tilt / Rotate Range | 0°~360° / 0°~100° / 0°~360° |

| Operational | |
|---|---|
| Camera Title | Displayed up to 85 characters |
| Day & Night | Auto(ICR) |
| Backlight Compensation | BLC, WDR, SSDR |
| Wide Dynamic Range | 120dB |
| Digital Noise Reduction | WiseNR II (Based on AI engine)<br>SSNR V |
| Motion Detection | 8ea, 8point polygonal zones |
| Privacy Masking | 32ea, 4point quadrangle zones<br>- Color: Gray/Green/Red/Blue/Black/White<br>Dynamic Privacy Mask<br>- Mosaic |
| Gain Control | Low / Middle / High |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| LDC | Support |
| Electronic Shutter Speed | Minimum / Maximum / Anti flicker (1/5~1/25,000sec)<br>Prefer shutter control(Based on AI engine) |
| Video Rotation | Flip, Mirror, Hallway view(90°/270°) |

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| | |
|---|---|
| Analytics | Classified object type: Person/Vehicle(Type:car/bus/truck/motorcycle/bicycle)<br>Attributes: Person(Upper/lower clothes color), Vehicle(Type:car/bus/truck/motorcycle/bicycle and color)<br>Support BestShot<br>Analytics events based on AI engine<br>- Motion detection*, Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit)<br>Analytics events<br>- Defocus detection, Tampering, Virtual area(Appear/Disappear)<br><br>* Some of the video analytics only works with people and vehicle detection |
| Business Intelligence | Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap |
| Alarm I/O | Input 1ea / Output 1ea |
| Alarm Triggers | Analytics, Network disconnect, Alarm input, MQTT subscription |
| Alarm Events | When alarm trigger occurred<br>- File upload(image) : e-mail/FTP/SFTP<br>- Notification : e-mail<br>- Recording : SD/SDHC/SDXC or NAS recording at event triggers<br>- Alarm output<br>- Handover(PTZ preset, Send message by HTTP/HTTPS/TCP)<br>- Audio clip playback<br>- MQTT: publication |
| Audio In | Selectable(mic in/line in) |
| Audio Out | Line out |
| Light Type | IR LED (850nm) |
| Light Viewable Length | 25m(82.02ft) |

## Network

| | |
|---|---|
| Ethernet | RJ-45 (10/100BASE-T) |
| Video Compression | H.265/H.264: Main/High, MJPEG |
| Audio Compression | G.711 u-law /G.726 selectable<br>G.726(ADPCM) 8KHz, G.711 8KHz<br>G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps<br>AAC-LC: 48Kbps at 16KHz |
| Smart Codec | Manual(5ea area), WiseStreamIII(Based on AI engine) |
| Bitrate Control | H.264/H.265: CBR or VBR<br>MJPEG: VBR |
| Streaming | Unicast(20 users) / Multicast<br>Multiple streaming(Up to 5 profiles) |
| Protocol | IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP/SFTP, 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 Profile S/G/T/M<br>SUNAPI(HTTP API)<br>Hanwha Vision Open Platform |

## 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) |
| Access Control | IP-based access control |
| Data Protect | Encryption credentials, Encrypt compress for live recording file |
| Audit | Access / System / Event Log management |
| Device ID | Device certificate(Hanwha Vision Root CA) |
| Secure Storage | SDcard partition encrypt |

## General

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| | |
|---|---|
| Webpage Language | English, Korean, Simplified Chinese, Traditional Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek |
| Edge Storage | Micro SD/SDHC/SDXC 1slot 256GB |
| Memory | 2GB RAM, 1GB Flash |

## Environmental & Electrical

| | |
|---|---|
| Operating Temperature / Humidity | -30°C~+55°C(-22°F~+131°F) / 0~100% RH(Condensing)<br>* Start up should be done at above -30°C<br>Humidity control /w Air vent |
| Storage Temperature / Humidity | -50°C~+60°C(-58°F~+140°F) / 0~95% RH |
| Certification | IP66, IK10 |
| Input Voltage | PoE(IEEE802.3af, Class3) |
| Power Consumption | PoE: Max 8.1W,<br>typical 4.0W |

## Mechanical

| | |
|---|---|
| Color / Material | White / Aluminum |
| RAL Code | RAL9003 |
| Product Dimensions / Weight | ø93.4x245.8mm(ø3.68x9.68"), 890g(1.96 lb) |
| Compatible Conduit hole / Gangbox | Conduit hole : None<br>Gangbox (SBO-090GP) : Single, Double, 4" Octagon (sold separately) |

## Certifications & Standards

| | |
|---|---|
| EMC | FCC 47 CFR 15 Subpart B Class A<br>ICES-3(A)/NMB-3(A)<br>CE/UKCA<br>- EN 55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3<br>VCCI CISPR 32 Class A<br>RCM AS/NZS CISPR 32 Class A<br>KS C 9832 Class A , KS C 9835 |
| Safety | UL 62368-1, CAN/CSA C22.2 NO. 62368-1<br>IEC/EN 62471 |
| Environment | IEC/EN 63000<br>IEC/EN 60529 IP66, IEC/EN 62262 IK10 |

## Compatible Models

| | |
|---|---|
| Back Box | SBO-140BW, SBO-140WW |
| Ceiling Mount (Single Unit) | SBP-140CMT |
| Pole Mount | SBD-140PMW |
| Corner Mount | SBD-140KMB |
| Cabinet | SBP-150NBW |
| Gang Plate | SBO-090GP |

## DORI (EN62676-4 standard)

| | |
|---|---|
| Detect (25PPM/ 8PPF) | 43.5m(142.71ft) |
| Observe (63PPM/ 19PPF) | 17.5m(57.09ft) |
| Recognize (125PPM/ 38PPF) | 8.7m(28.54ft) |
| Identify (250PPM/ 76PPF) | 4.3m(14.27ft) |

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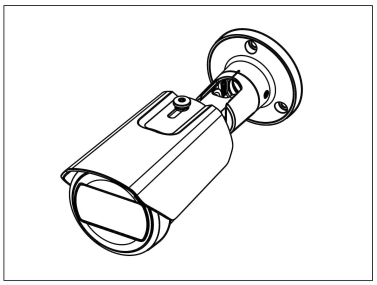
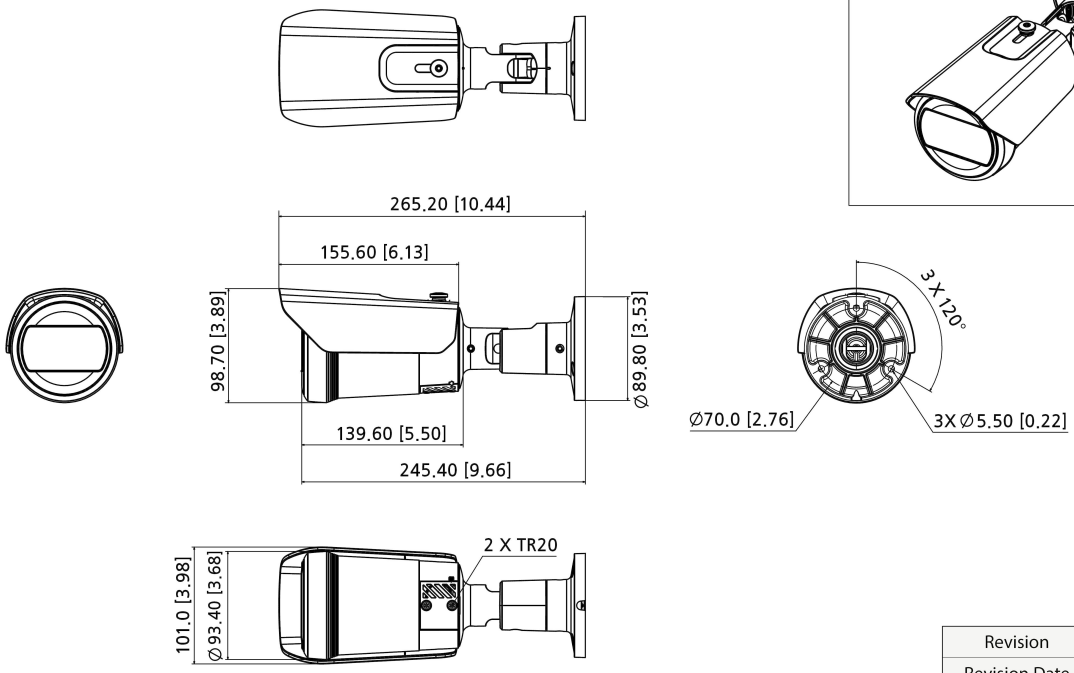
## CAD

**Unit:**mm [inch]

### QNO-C8013R/C8023R BULLET CAMERA

Reference image






| | |
|---|---|
| Revision | V1.0 |
| Revision Date | 24/12/20 |
| Paper Size | A0 |
| Unit | mm [inch] |
| Scale | 1:1 |

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Same Model_QNO-C6083R/C8083R/C9083R

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