



Network

Dome

# XNV-9083R

4K AI IR Vandal Dome Camera



## Key Features

- 4K resolution
- 4.4~9.3mm (2.1x) motorized varifocal
- Color: 0.04 Lux (F1.3, 1/30sec, 30IRE), 0 Lux (IR LED on)
- Maximum 30 fps (H.265/H.264)
- WiselR: IR viewable length 50 m (164.04 ft)
- Day & Night (ICR), extremeWDR (120 dB)
- Hard-coated dome bubble
- WiseNR II (Based on AI engine), WiseStreamIII (Based on AI engine)
- 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
- IP66/IP67/IP6K9K, NEMA4X, IK10+

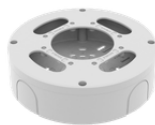
## Compatible Devices



SBP-187HMW



SBP-180HMW1



SBV-180BW



SBV-180WW



SBP-150CMI



SBP-300CMI



SBP-300CMW1



SBP-900CMW



SBP-300CMTW



SBP-300CMTS



SBP-300WMW



SBP-300WMW1



SBP-390WMW2



SBD-180PMW

## XNV-9083R

4K AI IR Vandal Dome Camera



### Specifications

| Video                         |   |                        |
|-------------------------------|---|------------------------|
| Imaging Device                | Size  | 1/1.8"                 |
|                               | Type  | CMOS                   |
| Resolution                    | 3840x2160, 3328x1872, 3072x1728, 2688x1520, 2592x1944, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 |                        |
| 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                     | CVBS: 1.0 Vp-p / 75Ω composite for installation.<br>USB: Micro USB Type B   |                        |
| 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                 | Simple focus, Manual  |                        |
| Lens Type                     | P iris(IR corrected)  |                        |
| Pan / Tilt / Rotate           |   |                        |
| Pan / Tilt / Rotate Range     | Pan   | 0°~360°                |
|                               | Tilt  | 0°~85°                 |
|                               | Rotate  | 0°~355°                |
| Operational                   |   |                        |
| Day & Night                   | Auto(ICR)   |                        |

## Operational

|   |                |  |
|---|----------------|--|
| <b>Backlight Compensation</b>                   |                | BLC, HLC, WDR, SSSDR   |
| <b>Wide Dynamic Range (dB)</b>                  |                | 120  |
| <b>Digital Noise Reduction</b>                  |                | WiseNR II (Based on AI engine), SSSNR V  |
| <b>Digital Image Stabilization</b>              |                | Support(built-in gyro sensor)  |
| <b>Defog</b>                                    |                | Support  |
| <b>Motion Detection</b>                         | Quantity       | 8ea  |
|   | Shape          | 8point Polygonal zones   |
| <b>Privacy Masking</b>                          | Quantity       | 32ea   |
|   | Shape          | 4point Quadrangle zones  |
|   | Color / Option | Gray, Green, Red, Blue, Black, White, Mosaic   |
| <b>Gain Control</b>                             |                | Off, Max gain, Manual  |
| <b>White Balance</b>                            |                | ATW, NarrowATW, AWC, Manual, Indoor, Outdoor   |
| <b>LDC</b>                                      |                | Support(Fill/stretch mode)   |
| <b>Electronic Shutter</b>                       | Mode           | Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)   |
|   | Speed Range    | 2~1/12,000sec  |
| <b>Video Rotation</b>                           |                | Flip, Mirror, Hallway view(90°/270°)   |
| <b>Alarm Interface</b>                          | In/Out         | 2 configurable I/O ports   |
|   | Others         | 12VDC output   |
| <b>Alarm Triggers</b>                           |                | Analytics, Network disconnect, Alarm input, App event, Time schedule, MQTT subscription  |
| <b>Alarm Events When Alarm Trigger Occurred</b> |                | File upload(image): e-mail/FTP/SFTP,<br>File upload(video clip): FTP/SFTP,<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,Audio clip playback,<br>MQTT: publication |
| <b>Audio In</b>                                 |                | Selectable(mic in/line in)   |
| <b>Audio Out</b>                                |                | Line out   |
| <b>Light Type</b>                               |                | IR LED   |
| <b>Light Viewable Length</b>                    | IR             | WiseIR 50m(164.04ft)   |
| <b>IR Wavelength</b>                            |                | 850nm  |

## Analytics

|                               |                    |   |
|-------------------------------|--------------------|---|
| <b>Classified Object Type</b> |                    | Person, Face, Vehicle, License plate  |
| <b>Attributes</b>             | Vehicle            | Type(car, bus, truck, motorcycle, bicycle)  |
| <b>Thumbnail</b>              |                    | DetectionShot   |
| <b>Analytics Events</b>       | Based on AI Engine | Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Motion detection                  |
|                               | Normal             | Defocus detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) |

## Analytics

|                              |                    |  |
|------------------------------|--------------------|--|
| <b>Business Intelligence</b> | Based on AI Engine | People counting, Queue management, Heatmap, Vehicle counting |
|------------------------------|--------------------|--|

## Network

|  |                    |   |
|--|--------------------|---|
| <b>Ethernet</b>                          |                    | Metal shielded RJ-45(10/100/1000BASE-T)   |
| <b>Video Compression</b>                 |                    | H.265/H.264: Main/Baseline/High, MJPEG  |
| <b>Audio Compression</b>                 |                    | G.711 u-law /G.726 selectable,G.726(ADPCM) 8kHz,G.711 8kHz,<br>G.726: 16kbps,24kbps,32kbps,40kbps,<br>AAC-LC: 48kbps at 16kHz   |
| <b>Smart Codec</b>                       |                    | Manual, WiseStreamIII   |
| <b>Bitrate Control</b>                   |                    | H.265/H.264: CBR or VBR,<br>MJPEG: VBR  |
| <b>Streaming</b>                         | Unicast            | Up to 20 users  |
|  | Multicast          | Support   |
|  | Multiple Streaming | Up to 10 profiles   |
| <b>Protocol</b>                          |                    | IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS,<br>SSL/TLS, DHCP, FTP, SFTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS,<br>QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT |
| <b>Application Programming Interface</b> | ONVIF              | S, G, T, M  |
|  | Others             | SUNAPI(HTTP API), Hanwha Vision Open Platform   |
| <b>Direct Cloud Connection</b>           |                    | Support   |

## Security

|                               |  |  |
|-------------------------------|--|--|
| <b>OS / Firmware Protect</b>  |  | Encrypted firmware, Secure boot, Signed firmware   |
| <b>User authentication</b>    |  | Digest authentication, Prevent brute-force attack  |
| <b>Network authentication</b> |  | IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)   |
| <b>Secure Communication</b>   |  | HTTPS, WSS(WebSocket Secure), SRTP   |
| <b>Access Control</b>         |  | IP-based access control  |
| <b>Data Protect</b>           |  | Encryption credentials, Encrypt compress for live recording file export                                  |
| <b>Audit</b>                  |  | Access / System / Event Log management   |
| <b>Device ID</b>              |  | Device certificate(Hanwha Vision Root CA)  |
| <b>Secure Storage</b>         |  | TPM(Trusted platform module), HTPM(Hanwha Trusted Platform Module), SDcard<br>partition encrypt(AES-256) |
| <b>Security Certificate</b>   |  | TPM 2.0 with FIPS 140-2 level2   |

## General

|                              |                    |  |
|------------------------------|--------------------|--|
| <b>Memory</b>                | RAM                | 4GB  |
|                              | Flash              | 512MB  |
| <b>Edge Storage</b>          | Micro SD/SDHC/SDXC | Max. 512GB x 2slot(Total 1TB)  |
| <b>Edge Storage(OnCloud)</b> | Micro SD/SDHC/SDXC | Max. 1TB x 2slots (Total 2TB) *Hanwha Vision branded microSD cards have been certified and recommended for OnCloud edge recording. |

## Environmental & Electrical

|                           |             |  |
|---------------------------|-------------|--|
| Operating Condition       | Temperature | -50°C~+60°C(-58°F~+140°F)  |
|                           | Humidity    | 0~100% RH(condensing)  |
|                           | Others      | 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)   |
| Input Voltage             |             | PoE+(IEEE802.3at, Class4), 12VDC                                       |
| Power Consumption         | PoE         | Max. 22.5W, typical 17.9W  |
|                           | 12VDC       | Max. 20.0W, typical 15.6W  |
| Power Redundance Failover |             | Support  |

## Mechanical

|                         |                                    |
|-------------------------|------------------------------------|
| Color                   | White                              |
| Material                | Aluminum, Hard-coated dome         |
| RAL Code                | RAL9003                            |
| Product Dimensions      | ø180x125mm(7.09x4.92")             |
| Product Weight          | 1,900g(4.19lb)                     |
| 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 60529 IP67, ISO 20653 IP6K9K, IEC 62262 IK10+, 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)   |

# XNV-9083R

4K AI IR Vandal Dome Camera



**CAD**

Unit: mm [inch]

