



Network

Dome

## XND-8093RV

6MP AI IR Dome Camera



### Key Features

- 6MP resolution
- 10.9~29mm (2.7x) motorized varifocal
- Color: 0.06 Lux (F1.7, 1/30sec, 30IRE), 0 Lux (IR LED on)
- Maximum 30fps (H.265/H.264)
- WiselR: IR viewable length 70m(229.66ft)
- 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
- IP52, IK10

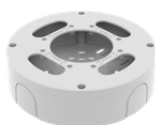
### Compatible Devices



SBP-167HMW



SBP-160HWMW1



SBV-180BW



SBV-180WW



SBP-150CMI



SBP-300CMI



SBP-300CMW1



SBP-900CMW



SBP-300CMTW



SBP-300CMTS



SBP-300WMW



SBP-300WMW1



SBP-390WMW2



SBP-160WMW1



SBD-180PMW



SBP-300PMW2



SHD-1350FPW



SBP-300LMW



SBP-156LMW1



SBP-300KMW1



SBP-300NBW



SPB-IND85W

## XND-8093RV

6MP AI IR Dome Camera



### Specifications

| Video                         |                       |                                                                                                                                                                          |
|-------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Imaging Device                | Size                  | 1/1.8"                                                                                                                                                                   |
|                               | Type                  | CMOS                                                                                                                                                                     |
| Resolution                    |                       | 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(@6MP Max. 5fps)                                                                                                                                                    |
| Min. Illumination (Lux)       | Color(1/30sec, 30IRE) | 0.06                                                                                                                                                                     |
|                               | BW(1/30sec, 30IRE)    | 0.006                                                                                                                                                                    |
| Video Out                     |                       | CVBS: 1.0 Vp-p / 75Ω composite for installation,<br>USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.                                          |
| Lens                          |                       |                                                                                                                                                                          |
| Focal Length (mm)             |                       | 10.9~29                                                                                                                                                                  |
| Zoom Ratio                    | Optical               | 2.7x                                                                                                                                                                     |
| Max Aperture Ratio (F number) | Wide                  | 1.7                                                                                                                                                                      |
|                               | Tele                  | 1.73                                                                                                                                                                     |
| Angular Field of View         | Horizontal            | 42°~15°                                                                                                                                                                  |
|                               | Vertical              | 23°~8°                                                                                                                                                                   |
|                               | Diagonal              | 49°~17°                                                                                                                                                                  |
| Min. Object Distance          |                       | Wide: 2.5m(8.20ft),<br>Tele: 6m(19.69ft)                                                                                                                                 |
| Focus Control                 |                       | Simple focus, Manual                                                                                                                                                     |
| Lens Type                     |                       | Adaptive 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

|                                          |                |                                                                                                                                                                                                                                                                                  |
|------------------------------------------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Backlight Compensation                   |                | BLC, HLC, WDR, SSSDR                                                                                                                                                                                                                                                             |
| Wide Dynamic Range (dB)                  |                | 120                                                                                                                                                                                                                                                                              |
| Digital Noise Reduction                  |                | WiseNR II (Based on AI engine), SSNR V                                                                                                                                                                                                                                           |
| Digital Image Stabilization              |                | Support(built-in gyro sensor)                                                                                                                                                                                                                                                    |
| Defog                                    |                | Support                                                                                                                                                                                                                                                                          |
| Motion Detection                         | Quantity       | 8ea                                                                                                                                                                                                                                                                              |
|                                          | Shape          | 8point Polygonal zones                                                                                                                                                                                                                                                           |
| Privacy Masking                          | Quantity       | 32ea                                                                                                                                                                                                                                                                             |
|                                          | Shape          | 4point Quadrangle zones                                                                                                                                                                                                                                                          |
|                                          | Color / Option | Gray, Green, Red, Blue, Black, White, Mosaic                                                                                                                                                                                                                                     |
| 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    | 2~1/12,000sec                                                                                                                                                                                                                                                                    |
| Video Rotation                           |                | Flip, Mirror, Hallway view(90°/270°)                                                                                                                                                                                                                                             |
| Alarm Interface                          | In/Out         | 2 configurable I/O ports                                                                                                                                                                                                                                                         |
|                                          | Others         | 12VDC output                                                                                                                                                                                                                                                                     |
| Alarm Triggers                           |                | Analytics, Network disconnect, Alarm input, App event, Time schedule, MQTT subscription                                                                                                                                                                                          |
| Alarm Events When Alarm Trigger Occurred |                | 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 |
| Audio In                                 |                | Selectable(mic in/line in), Built-in mic                                                                                                                                                                                                                                         |
| Audio Out                                |                | Line out                                                                                                                                                                                                                                                                         |
| Light Type                               |                | IR LED                                                                                                                                                                                                                                                                           |
| Light Viewable Length                    | IR             | WiseIR 70m(229.66ft)                                                                                                                                                                                                                                                             |
| IR Wavelength                            |                | 850nm                                                                                                                                                                                                                                                                            |

## Analytics

|                        |                    |                                                                                                                                     |
|------------------------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Classified Object Type |                    | Person, Face, Vehicle, License plate                                                                                                |
| Attributes             | Vehicle            | Type(car, bus, truck, motorcycle, bicycle)                                                                                          |
| Thumbnail              |                    | DetectionShot                                                                                                                       |
| Analytics Events       | 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

|                       |                    |                                                              |
|-----------------------|--------------------|--------------------------------------------------------------|
| Business Intelligence | Based on AI Engine | People counting, Queue management, Heatmap, Vehicle counting |
|-----------------------|--------------------|--------------------------------------------------------------|

## Network

|                                   |                                                                                                                                                                                                                                   |                                               |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| Ethernet                          | Metal shielded RJ-45(10/100/1000BASE-T)                                                                                                                                                                                           |                                               |
| Video Compression                 | H.265/H.264: Main/Baseline/High, MJPEG                                                                                                                                                                                            |                                               |
| Audio Compression                 | 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                                                                                                     |                                               |
| Smart Codec                       | Manual, WiseStreamIII                                                                                                                                                                                                             |                                               |
| Bitrate Control                   | H.265/H.264: CBR or VBR,<br>MJPEG: VBR                                                                                                                                                                                            |                                               |
| Streaming                         | Unicast                                                                                                                                                                                                                           | Up to 20 users                                |
|                                   | Multicast                                                                                                                                                                                                                         | Support                                       |
|                                   | Multiple Streaming                                                                                                                                                                                                                | Up to 10 profiles                             |
| Protocol                          | 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 |                                               |
| 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                                                                                  |  |
| 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), HTPM(Hanwha Trusted Platform Module), SDcard<br>partition encrypt(AES-256) |  |
| Security Certificate   | TPM 2.0 with FIPS 140-2 level2                                                                           |  |

## General

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

## Environmental & Electrical

|                           |             |                                  |
|---------------------------|-------------|----------------------------------|
| Operating Condition       | Temperature | -25°C~+50°C(-13°F~+122°F)        |
|                           | Humidity    | 0~100% RH(condensing)            |
|                           | Others      | 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. 20W, typical 15.6W          |
| Power Redundance Failover |             | Support                          |

## Mechanical

|                         |                                    |
|-------------------------|------------------------------------|
| Color                   | White                              |
| Material                | Aluminum                           |
| RAL Code                | RAL9003                            |
| Product Dimensions      | ø160x125mm(6.30x4.92")             |
| Product Weight          | 1,600g(3.53lb)                     |
| Compatible Conduit Hole | 12.7mm(1/2")(M20)                  |
| 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 IP52, IEC 62262 IK10                                                                                                                                                             |

## DORI (EN62676-4 standard)

|                           |      |                    |
|---------------------------|------|--------------------|
| Detect (25PPM/ 8PPF)      | Wide | 173.4m(568.88ft)   |
|                           | Tele | 505.6m(1,658.71ft) |
| Observe (63PPM/ 19PPF)    | Wide | 69.4m(227.55ft)    |
|                           | Tele | 202.2m(663.48ft)   |
| Recognize (125PPM/ 38PPF) | Wide | 34.7m(113.78ft)    |
|                           | Tele | 101.1m(331.74ft)   |
| Identify (250PPM/ 76PPF)  | Wide | 17.3m(56.89ft)     |
|                           | Tele | 50.6m(165.87ft)    |

XND-8093RV  
6MP AI IR Dome Camera



CAD

Unit: mm [inch]

