



Network

Dome

PND-A9082RV

8MP AI Indoor Dome Camera



Key Features

- Maximum 8MP resolution (1/1.2" sensor)
- 5.9~13.3mm(2.25x) motorized varifocal
- Long range WiselR distance up to 60m (196.85ft)
- Color: 0.015Lux(F1.5, 1/30sec, 30IRE)
- BW: 0.0015Lux(F1.5, 1/30sec, 30IRE)
- 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)
- Support Wisepower (Power monitoring)
- Device certificate (Hanwha Vision Root CA), Secure storage (Secure element with FIPS 140-3 level3/CC EAL6+ certified), SBOM
- 2 SD slots edge storage
- IP52, IK10

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8MP AI Indoor Dome Camera



Specifications

Video

| | | |
|-------------------------|-----------------------|---|
| Imaging Device | Size | 1/1.2" |
| | Type | CMOS |
| Resolution | | 3840x2160, 3328x1872, 3072x1728, 2688x1512, 2592x1944, 2560x1440, 1920x1080, 1600x1200, 1280x960, 1280x720, 1024x768, 800x600, 640x480, 640x360, 320x240, 320x180 |
| Max. Framerate | H.265/H.264 | 30fps/25fps(60Hz/50Hz) |
| | MJPEG | 30fps(@8MP Max. 5fps) |
| Min. Illumination (Lux) | Color(1/30sec, 30IRE) | 0.015 |
| | BW(1/30sec, 30IRE) | 0.0015 |
| Video Out | | USB: Micro USB Type C |

Lens

| | | |
|-------------------------------|------------|----------------------|
| Focal Length (mm) | | 5.9~13.3 |
| Zoom Ratio | Optical | 2.25x |
| Max Aperture Ratio (F number) | Wide | 1.5 |
| | Tele | 2.9 |
| Angular Field of View | Horizontal | 109°~49° |
| | Vertical | 59°~27° |
| | Diagonal | 128°~56° |
| Min. Object Distance | | 0.8m(2.62ft) |
| Focus Control | | Simple focus |
| Lens Type | | P iris(IR corrected) |

Pan / Tilt / Rotate

| | | |
|---------------------------|--------|----------|
| Pan / Tilt / Rotate Range | Pan | 0°~360° |
| | Tilt | -45°~85° |
| | Rotate | 0°~355° |

Operational

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

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 | Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow |
| | Dynamic Privacy Masking: Color / Option | Gray, Green, Red, Blue, Black, White, Mosaic, Purple, Yellow |
| 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 | 2~1/30,000sec |
| 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, Time schedule, MQTT subscription, Case tampering, Day/Night, Storage disruption |
| Alarm Events When Alarm Trigger Occurred | | File upload(image): e-mail/FTP/SFTP, File upload(video clip): FTP/SFTP, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output, Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback, MQTT: publication |
| Audio In | | Selectable(mic in/line in), Built-in 3mics |
| Audio Out | | Line out |
| Light Type | | IR LED |
| Light Viewable Length | IR | WiseIR 60m(196.85ft) |
| IR Wavelength | | 850nm |

Analytics

| | | |
|------------------------|---------|---|
| Classified Object Type | | Person, Face, Vehicle, License plate |
| Attributes | Person | Upper/Lower clothes color, Gender, Bag |
| | Vehicle | Type(car, bus, truck, motorcycle, bicycle), Color |
| | Face | Age, Gender, Face mask, Glasses |
| Thumbnail | | BestShot |

Analytics

| | | |
|-----------------------|--------------------|--|
| Analytics Events | Based on AI Engine | Object detection, Virtual line(Crossing/Direction), Motion detection, Face mask detection, Social distancing detection, Slip & fall detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear) |
| | Normal | Defocus detection, Tampering, Audio detection, Shock detection |
| Business Intelligence | Based on AI Engine | People counting, Queue management, Heatmap, Vehicle counting, Crowd 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(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 | Up to 5 profiles, 3 virtual channel support |
| 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, Syslog |
| 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, MAC-based access control, Auto logout |
| 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 | | Secure element(FIPS 140-3 level3, CC EAL6+), Consumer IoT Security Standard (ETSI EN 303 645) |

General

| | | |
|-----------------------|--------------------|--|
| SoC | Type | Wisenet 9 |
| | Dual NPU | Support |
| Memory | RAM | 4GB |
| | Flash | 8GB eMMC |
| Edge Storage | Micro SD/SDHC/SDXC | Max. 1TB x 2slot(Total 2TB) |
| Edge Storage(OnCloud) | 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 | -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) |
| EPA(Effective Projected Area) | | 0.0148m ² |
| Input Voltage | | PoE+(IEEE802.3at, Class4), 12VDC |
| Power Consumption | PoE | Max. 19.2W, typical 11.0W |
| | 12VDC | Max. 16.5W, typical 9.5W |
| Wisepower | | Power monitoring |
| Power Redundance Failover | | Support |

Mechanical

| | |
|-------------------------|------------------------------------|
| Color | White |
| Material | Aluminum, Hard-coated dome |
| RAL Code | RAL9003 |
| Product Dimensions | ø160x125mm(ø6.30x4.92") |
| Product Weight | 1550g(3.42lb) |
| 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, IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78 |

DORI (EN62676-4 standard)

| | | |
|---------------------------|------|------------------|
| Detect (25PPM/ 8PPF) | Wide | 54.8m(179.73ft) |
| | Tele | 168.5m(552.89ft) |
| Observe (63PPM/ 19PPF) | Wide | 21.9m(71.89ft) |
| | Tele | 67.4m(221.16ft) |
| Recognize (125PPM/ 38PPF) | Wide | 11.0m(35.95ft) |
| | Tele | 33.7m(110.58ft) |
| Identify (250PPM/ 76PPF) | Wide | 5.5m(17.97ft) |
| | Tele | 16.9m(55.29ft) |

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CAD

Unit: mm [inch]

