# P series PNV-A9081RX

**Hanwha Vision**

Network | Dome

# PNV-A9081RX
## 4K AI IR Vandal Dome Camera

FC | UL LISTED | CE | EAC | NDAA COMPLIANT

## Key Features

- Maximum 4K resolution
- Color: 0.05Lux(F1.6, 1/30sec), BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)
- WiseNR II  based on AI engine, Prefer Shutter Control based on AI engine
- H.265, H.264, MJPEG codec
- Video Analytics based on AI
- Object detection and classification(Person, Face, Vehicle, License Plate)
- Face mask detection, Social distancing detection
- Attribute, BestShot
- Edge Storage: Micro SD/SDHC/SDXC 2slots 512GB

# PNV-A9081RX

## 4K AI IR Vandal Dome Camera

## Specifications

### Video

| | |
|---|---|
| Imaging Device | 1/1.8" CMOS |
| Resolution | 3840x2160, 3072x1728, 2592x1944, 2688x1520, 2560x1440, 2048x1536, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360 |
| Max. Framerate | H.265/H.264: Max. 30fps/25fps(60Hz/50Hz)<br>MJPEG: Max. 30fps(@8MP Max. 5fps) |
| Min. Illumination | Color: 0.05Lux(F1.6, 1/30sec)<br>BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on) |
| Video Out | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation<br>USB: Micro USB Type B, 1280x720 for installation |

### Lens

| | |
|---|---|
| Focal Length (Zoom Ratio) | 4.5~10mm(2.2x) motorized varifocal |
| Max. Aperture Ratio | F1.6(Wide)~F2.65(Tele) |
| Angular Field of View | H: 102°(Wide)~45°(Tele)<br>V: 54°(Wide)~25°(Tele)<br>D: 121°(Wide)~52°(Tele) |
| Min. Object Distance | 0.5m(1.64ft) |
| Focus Control | Simple focus |
| Lens Type | P-iris |

### Pan / Tilt / Rotate

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

### Operational

| | |
|---|---|
| Camera Title | Displayed up to 85 characters |
| Day & Night | Auto(ICR) |
| Backlight Compensation | BLC, WDR, SSDR |
| Digital Noise Reduction | WiseNR II (Based on AI engine), SSNR V |
| Digital Image Stabilization | Support(built-in gyro sensor) |
| Motion Detection | 8ea, polygonal zones |
| Privacy Masking | 6ea, Rectangle zones<br>- Color: Gray/Black/White |
| Gain Control | Low / Middle / High |
| White Balance | ATW / AWC / Manual / Indoor / Outdoor |
| LDC | Support |
| Electronic Shutter Speed | Minimum / Maximum / Anti flicker(1/5~1/12,000sec)<br>Prefer shutter control(Based on AI engine) |
| Video Rotation | Flip, Mirror, Hallway view(90-/270-) |

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com
Hanwha Vision is formerly known as Hanwha Techwin.

| Analytics | Classified object type: Person/Face/Vehicle/License plate<br>Attributes: Person(Gender, Color and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Color)<br>Support Bestshot per object<br>Analytics events based on AI engine<br>- Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit), Face mask detection, Digital auto tracking, Social distancing detection<br>Analytics events<br>- Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, 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, Queue management, Heatmap |
| Alarm I/O | 2 configurable I/O ports, DC 12V output(Max. 50mA) |
| Alarm Triggers | Analytics, Network disconnect, Alarm input |
| Alarm Events | When alarm trigger occurred<br>- File upload(image): e-mail/FTP<br>- Notification: e-mail<br>- Recording: SD/SDHC/SDXC or NAS recording at event triggers<br>- Handover(PTZ preset, Send message by HTTP/HTTPS/TCP)<br>- Alarm output<br>- Audio clip playback |
| Audio In | Selectable(mic in/line in)<br>Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm |
| Audio Out | Line out, Max.output level: 1Vrms |
| IR Viewable Length | 30m(98.42ft) |

## Network

| Ethernet | Metal shielded RJ-45(10/100/1000BASE-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), WiseStream II , WiseStreamIII(Based on AI engine) |
| Video Quality Adjustment | H.264/H.265: Target bitrate level control<br>MJPEG: Target bitrate level control |
| Bitrate Control | H.264/H.265: CBR or VBR<br>MJPEG: VBR |
| Streaming | Unicast(6 users) / Multicast<br>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, SRTP (TCP, UDP Unicast) |
| Security | HTTPS(SSL) Login Authentication<br>Digest Login Authentication<br>IP Address Filtering<br>User access log<br>802.1X Authentication(EAP-TLS, EAP-LEAP)<br>Device Certificate(Hanwha Vision Root CA)<br>Secure boot |
| Application Programming Interface | ONVIF Profile S/G/T/M<br>SUNAPI(HTTP API)<br>Wisenet open platform |

## General

| Webpage Language | English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek |
|---|---|
| Edge Storage | Micro SD/SDHC/SDXC 2slots 512GB |
| Memory | 4GB RAM, 512MB Flash |

## Environmental & Electrical

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| | |
|---|---|
| Operating Temperature / Humidity | When using the camera with housing<br>-40°C~+55°C(-40°F~+131°F) / 0~90% RH<br>* Start up should be done at above -30°C<br>* Support housing: PNV-A9081R/PNV-A6081R/XNV-9083R/XNV-8083R/XNV-6083R/XNV-9082R/XNV-8082R |
| Storage Temperature / Humidity | -50°C~+60°C(-58°F~+140°F) / 0~90% RH |
| Certification | IP66/IP67/IP6K9K, IK10+, NEMA4X<br>* When using the camera with housing PNV-A9081R/PNV-A6081R/XNV-9083R/XNV-8083R/XNV-6083R/XNV-9082R/XNV-8082R |
| Input Voltage | PoE+(IEEE802.3at type2, class4), 12VDC |
| Power Consumption | PoE+: Max 20.00W, typical 17.00W<br>12VDC: Max 18.70W, typical 15.00W |

## Mechanical

| | |
|---|---|
| Color / Material | Black / Aluminum |
| Product Dimensions / Weight | ø137.7x104.9mm(ø5.42x4.13"), 750g(1.66lb) |

## DORI (EN62676-4 standard)

| | |
|---|---|
| Detect (25PPM/ 8PPF) | Wide: 62.2m(204.04ft) / Tele: 185.4m(608.31ft) |
| Observe (63PPM/ 19PPF) | Wide: 24.9m(81.62ft) / Tele: 74.2m(243.32ft) |
| Recognize (125PPM/ 38PPF) | Wide: 12.4m(40.81ft) / Tele: 37.1m(121.66ft) |
| Identify (250PPM/ 76PPF) | Wide: 6.2m(20.40ft) / Tele: 18.5m(60.83ft) |