



Network

Dome

# PND-A9081RVX

4K AI IR Dome Camera



## 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

# PND-A9081RVX

4K AI IR 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) MJPEG: Max. 30fps(@8MP Max. 5fps)
Min. Illumination	Color: 0.05Lux(F1.6, 1/30sec) 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 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) V: 54°(Wide)~25°(Tele) 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, SDDR
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 - 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) 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](http://HanwhaVision.com).

Hanwha Vision is formerly known as Hanwha Techwin.

© Hanwha Vision CO., LTD. All rights reserved.

Analytics	<p>Classified object type: Person/Face/Vehicle/License plate                  Attributes: Person(Gender, Color and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Color)                  Support Bestshot per object                  Analytics events based on AI engine                  - Object detection, Virtual line*(Crossing/Direction), Virtual area*(Loitering/Intrusion/Enter/Exit), Face mask detection, Digital auto tracking, Social distancing detection                  Analytics events                  - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)</p> <p>*Some of the video analytics only works with people and vehicle detection</p>
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	<p>When alarm trigger occurred</p> <ul style="list-style-type: none"> <li>- File upload(image): e-mail/FTP</li> <li>- Notification: e-mail</li> <li>- Recording: SD/SDHC/SDXC or NAS recording at event triggers</li> <li>- Handover(PTZ preset, Send message by HTTP/HTTPS/TCP)</li> <li>- Alarm output</li> <li>- Audio clip playback</li> </ul>
Audio In	<p>Selectable(mic in/line in/built-in mic)                  Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm</p>
Audio Out	Line out, Max.output level: 1Vrms
IR Viewable Length	30m(98.42ft)

<b>Network</b>	
Ethernet	Metal shielded RJ-45(10/100/1000BASE-T)
Video Compression	H.265/H.264: Main/High, MJPEG
Audio Compression	<p>G.711 u-law /G.726 Selectable                  G.726(ADPCM) 8KHz, G.711 8KHz                  G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps                  AAC-LC: 48Kbps at 16KHz</p>
Smart Codec	Manual(5ea area), WiseStream II , WiseStreamIII (Based on AI engine)
Video Quality Adjustment	<p>H.264/H.265: Target bitrate level control                  MJPEG: Target bitrate level control</p>
Bitrate Control	<p>H.264/H.265: CBR or VBR                  MJPEG: VBR</p>
Streaming	<p>Unicast(6 users) / Multicast                  Multiple streaming(Up to 3 profiles)</p>
Protocol	<p>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)</p>
Security	<p>HTTPS(SSL) Login Authentication                  Digest Login Authentication                  IP Address Filtering                  User access log                  802.1X Authentication(EAP-TLS, EAP-LEAP)                  Device Certificate(Hanwha Vision Root CA)                  Secure boot</p>
Application Programming Interface	<p>ONVIF Profile S/G/T/M                  SUNAPI(HTTP API)                  Wisenet open platform</p>

<b>General</b>	
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**

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

**PND-A9081RVX**

Operating Temperature / Humidity	When using the camera with housing -40°C~+55°C(-40°F~+131°F) / 0~90% RH * Start up should be done at above -30°C * 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 * 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 16.00W 12VDC: Max 17.70W, typical 14.00W

**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)