



Network

Dome

# PNV-A9081RLP

4K LPR/ANPR/MMCR IR Vandal Dome Camera



## Key Features

- Max. 4K resolution
- 0.05Lux@F1.6 (Color), 0Lux (B/W, IR LED on)
- Day & Night(ICR), WDR(120dB)
- IR Viewable Length 30m (98.42ft)
- H.265, H.264, MJPEG codec, WiseStream II
- Wisenet Road AI application (Pre-installed)
  - CNN (Convolutional Neural Network) AI with improved accuracy in challenging conditions
  - License/ Number Plate Recognition
  - Make/Model/Color Recognition
  - Black/White Notification
  - SmartSearch (LP/NP, Country, brand, model, color, date)

※ Specifications require Road AI App version v7.3532 or higher

## Compatible Devices



SBC-180B



SBP-300LMW



SBP-300WMW1



SBP-300BW



SBP-300PMW



SPB-VAN85W



SBP-300CMW



SBP-187HMW

# PNV-A9081RLP

4K LPR/ANPR/MMCR IR Vandal Dome Camera



## Specifications

### Video

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

### Lens

Focal Length (mm)	4.5~10	
Zoom Ratio	Optical	2.2x
Max Aperture Ratio (F number)	Wide	1.6
	Tele	2.65
Angular Field of View	Horizontal	101.4°~45.5°
	Vertical	53.6°~25.5°
	Diagonal	120.7°~52.3°
Min. Object Distance	0.5m(1.64ft)	
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)
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## Operational

Backlight Compensation		BLC, WDR, SDR
Wide Dynamic Range (dB)		120
Digital Noise Reduction		SSNR V
Digital Image Stabilization		Support(built-in gyro sensor)
Motion Detection	Quantity	8ea
	Shape	8point Polygonal zones
Privacy Masking	Quantity	6ea
	Shape	Rectangular zones
	Color / Option	Gray, Black, White
Gain Control		Low, Middle, High
White Balance		ATW, AWC, Manual, Indoor, Outdoor
LDC		Support
Electronic Shutter	Mode	Minimum, Maximum, Anti flicker
	Speed Range	1/5~1/12,000sec
Video Rotation		Flip, Mirror, Hallway view(90°/270°)
Alarm Interface	In/Out	Input 1ea, Output 1ea
	Others	12VDC output
Alarm Triggers		Analytics, Network disconnect, Alarm input
Alarm Events When Alarm Trigger Occurred		File upload(image): e-mail/FTP, 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
Audio In		Selectable(mic in/line in)
Audio Out		Line out
Light Type		IR LED
Light Viewable Length	IR	30m(98.42ft)
IR Wavelength		850nm

## Analytics

Analytics Events	Normal	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection
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## 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,G.726(ADPCM) 8kHz,G.711 8kHz, G.726: 16kbps,24kbps,32kbps,40kbps, AAC-LC: 48kbps at 16kHz
Smart Codec	Manual, WiseStream II

## Network

<b>Bitrate Control</b>		H.265/H.264: CBR or VBR, MJPEG: VBR
<b>Streaming</b>	Unicast	Up to 6 users
	Multicast	Support
	Multiple Streaming	Up to 3 profiles
<b>Protocol</b>		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)
<b>Application Programming Interface</b>	ONVIF	S, G, T
	Others	SUNAPI(HTTP API)
<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>	SDcard partition encrypt(AES-256)
<b>Security Certificate</b>	None, None

## General

<b>Memory</b>	RAM	4GB
	Flash	512MB
<b>Edge Storage</b>	Micro SD/SDHC/SDXC	1slot (32GB card preinstalled)

## Environmental & Electrical

<b>Operating Condition</b>	Temperature	-40°C~+55°C(-40°F~+131°F)
	Humidity	0~90% RH(non-condensing)
	Others	Start up should be done at above -30°C
<b>Storage Condition</b>	Temperature	-50°C~+60°C(-58°F~+140°F)
	Humidity	0~90% RH(non-condensing)
<b>Input Voltage</b>		PoE+(IEEE802.3at, Class4), 12VDC
<b>Power Consumption</b>	PoE	Max 20.00W, typical 17.00W
	12VDC	Max 18.70W, typical 15.00W

## Mechanical

Color	White
Material	Aluminum
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

## Wisenet Road AI LPR/ANPR/MMCR

App Type		CNN (Convolutional Neural Network) AI
LPR Usage Condition	NA	Community Traffic, Parking Application
	EU	Community Traffic, Parking Application
Speed Description by Region	NA	Low to Moderate Speed
	EU	Low to Moderate Speed
Lane Coverage_NA	1 Lane	3.6m/12ft wide (with built in IR)
	2 Lanes	8.1m/26ft wide (with built in IR)
Lane Coverage_EU	1 Lane	3.6m/12ft wide (with built in IR)
	2 Lanes	8.1m/26ft wide (with built in IR)
	3 Lanes	16.2m/53ft wide (with built in IR)
Plate Capture Resolution_NA	1 Lane	4K
	2 Lanes	4K
Plate Capture Resolution_EU	1 Lane	4K
	2 Lanes	4K
	3 Lanes	4K
Speed Limit_NA	1 Lane	Up to 90km/h (56mph)
	2 Lanes	Up to 70km/h (43mph)
Speed Limit_EU	1 Lane	Up to 110km/h (68mph)
	2 Lanes	Up to 100km/h (62mph)
	3 Lanes	Up to 45km/h (28mph)
Min. Forward Distance_NA	1 Lane	6m (19.7ft)
	2 Lanes	8m (26.2ft)
Min. Forward Distance_EU	1 Lane	6m (19.7ft)
	2 Lanes	6m (19.7ft)
	3 Lanes	9m (29.5ft)
Max. Forward Distance_NA	1 Lane	15m (49.2ft)
	2 Lanes	15m (49.2ft)

### Wisenet Road AI LPR/ANPR/MMCR

<b>Max. Forward Distance_EU</b>	1 Lane	20m (65.6ft)
	2 Lanes	20m (65.6ft)
	3 Lanes	20m (65.6ft)
<b>Max. Horizontal Angle by Region</b>	NA	30° for highway, 45° for traffic observation
	EU	30° for highway, 45° for traffic observation
<b>Max. Vertical Angle by Region</b>	NA	30°
	EU	30°
<b>Vehicle Recognition</b>	Make: 100+ makes Model: 4700+ models Color: 11 colors	
<b>Available Countries</b>	Albania, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Cyprus, Czechia, Denmark, Estonia, Finland, France, Greece, Germany, Hungary, Ireland, Iceland, Italy, Lithuania, Luxembourg, Latvia, Montenegro, North Macedonia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovenia, Slovakia, Spain, Switzerland, Turkey, United Kingdom, United States of America, Canada, Russian Federation, Azerbaijan, Uzbekistan, Ukraine, Kyrgyzstan, Kazakhstan, Tajikistan, Georgia, Turkmenistan, Vietnam, Indonesia, Bahrain, Kuwait, Oman, Qatar, KSA, UAE, South Africa, Hongkong/Taiwan (LPR only), Australia/New Zealand (LPR only), Peru/Columbia (LPR only), Liechtenstein, Mexico, Moldova, Monaco, San Marino, Sweden, Croatia, Czech Republic, Gibraltar, Israel, Kosovo, Macedonia, Mongolia	
<b>Integration Options</b>	JSON over HTTP, UTMC 1, UTMC 2, NVR, Wisenet WAVE	
<b>VMS Support</b>	Wisenet WAVE, Wisenet SSM, Genetec Security Center, Milestone Xprotect, Genetec AutoVu	

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## CAD

Unit: mm [inch]

