



Network

Bullet

## PNO-A9081RLP

4K LPR/ANPR IR Bullet 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)
  - License/Number Plate Recognition
  - Make/Model/Color Recognition
  - Black/White list notification
  - Smart Search (LP/NP, Country, brand, model, color)

\* Supported features may vary by region. Please contact your regional manager for more details.

### Compatible Accessories (Optional)



SBP-302PM

# PNO-A9081RLP

## 4K LPR/ANPR IR Bullet Camera



### Specifications

#### Video

<b>Imaging Device</b>	1/1.8" CMOS
<b>Resolution</b>	3840x2160, 3072x1728, 2592x1944, 2688x1520, 2560x1440, 2048x1536, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800 x 600, 800 x 448, 720 x 576, 720x480, 640x480, 640x360
<b>Max. Framerate</b>	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz)
<b>Min. Illumination</b>	Color: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)
<b>Video Out</b>	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation

#### Lens

<b>Focal Length (Zoom Ratio)</b>	4.5~10mm(2.2x) motorized varifocal
<b>Max. Aperture Ratio</b>	F1.6(Wide)~F2.65(Tele)
<b>Angular Field of View</b>	H:101.4°(Wide)~45.5°(Tele) / V:53.6°(Wide)~25.5°(Tele) / D:120.7°(Wide)~52.3°(Tele)
<b>Min. Object Distance</b>	0.5m(1.64ft)
<b>Focus Control</b>	Simple focus
<b>Lens Type</b>	P iris

#### Operational

<b>Camera Title</b>	Displayed up to 85 characters
<b>Day &amp; Night</b>	Auto(ICR)
<b>Backlight Compensation</b>	BLC, WDR, SDR
<b>Digital Noise Reduction</b>	SSNR V
<b>Digital Image Stabilization</b>	Stabilization Support(built-in gyro sensor)
<b>Motion Detection</b>	8ea, polygonal zones
<b>Privacy Masking</b>	6ea, rectangle zones - Color: Gray/Black/White
<b>Gain Control</b>	Low / Middle / High
<b>White Balance</b>	ATW / AWC / Manual / Indoor / Outdoor
<b>LDC</b>	Support
<b>Electronic Shutter Speed</b>	Minimum / Maximum / Anti flicker (1/5~1/12,000sec)
<b>Video Rotation</b>	Flip, Mirror, Hallway view(90/270)
<b>Analytics</b>	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection
<b>Alarm I/O</b>	Input 1ea / Output 1ea / DC 12V Power(Max. 50mA) 1ea
<b>Alarm Triggers</b>	Analytics, Network disconnect, Alarm input
<b>Alarm Events</b>	File upload via FTP and e-mail Notification via e-mail SD/SDHC/SDXC or NAS recording at event triggers Alarm output Handover Audio playback
<b>Audio In</b>	Selectable(mic in/line in/Built in mic) Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm
<b>Audio Out</b>	Line out, Max.output level: 1Vrms
<b>IR Viewable Length</b>	30m(98.42ft)

Network	
Ethernet	Metal shielded RJ-45(10/100/1000 BASE-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(5ea area), WiseStream II
Bitrate Control	H.264/H.265: CBR or VBR MJPEG: VBR
Streaming	Unicast(6 users) / Multicast 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 Digest Login Authentication IP Address Filtering User access log 802.1X Authentication(EAP-TLS, EAP-LEAP) Device Certificate(Hanwha Techwin Root CA) Secure boot
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) 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	Pre-installed with 32GB Micro SD to support 10,000 LPR images
Memory	4096MB RAM, 512MB Flash

Environmental & Electrical	
Operating Temperature / Humidity	-40°C ~ +55°C(-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C
Storage Temperature / Humidity	-50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH
Certification	IP66/IP67, IK10, NEMA4X
Input Voltage	PoE+(IEEE802.3at), 12VDC
Power Consumption	PoE+: Max 20.0W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W

Mechanical	
Color / Material	Dark gray / Aluminum
Product Dimensions / Weight	Ø91.0x368.6mm (3.58" x 14.51") (Without sunshield), Weight : 2.48Kg (5.47lb)

Wisenet Road AI LPR/ANPR/MMCR		
Solution	Community Traffic	Parking Application
Speed Description	Moderate Speed	Low speed
Lane Coverage	1 lane (3.6m/12ft Wide) (with built in IR)	
Speed limit	Up to 70kmh (45mph) (with built in IR)	Up to 40kmh (25mph) (with built in IR)
Min. Forward Distance	12m (38ft)	10m (33ft)
Max. Forward Distance	12m (40ft) (with built in IR)	13m (45ft) (with built in IR)
Max. Horizontal Angle	25°	30°
Max. Vertical Angle	25°	30°
Horizontal Offset	Up to 5m (18ft)	Up to 7m (24ft)
Camera Height	Up to 5m (18ft)	Up to 7m (24ft)
Vehicle Recognition	Make : 70+ Model : 600+ Color : 11	

**Available Countries**

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, Australia, Newziland, Hongkong, Indonesia, Vietnam, Taiwan, Bahrain, Kuwait, Oman, Qatar, KSA (Kingdom of Saudi Arabia), UAE, South Africa

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CAD

Unit: mm [inch]

