



Network

Bullet

# PNO-A9081RLP

4K LPR/ANPR/MMCR 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 Devices



SBP-302PM

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## Specifications

Video	
Imaging Device	1/1.8" CMOS
Resolution	3840x2160, 3072x1728, 2592x1944, 2688x1520, 2560x1440, 2048x1536, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800 x 600, 800 x 448, 720 x 576, 720x480, 640x480, 640x360
Max. Framerate	H.265/H.264: Max. 30fps/25fps(60Hz/50Hz) MJPEG: Max. 30fps/25fps(60Hz/50Hz)
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:101.4°(Wide)~45.5°(Tele) / V:53.6°(Wide)~25.5°(Tele) / D:120.7°(Wide)~52.3°(Tele)
Min. Object Distance	0.5m(1.64ft)
Focus Control	Simple focus
Lens Type	P iris
Operational	
Camera Title	Displayed up to 85 characters
Day & Night	Auto(ICR)
Backlight Compensation	BLC, WDR, SDR
Digital Noise Reduction	SSNR V
Digital Image Stabilization	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)
Video Rotation	Flip, Mirror, Hallway view(90-/270-)
Analytics	Defocus/ Motion/ Tampering/ Audio/ Shock detection, Sound classification
Alarm I/O	Input 1ea / Output 1ea / DC 12V Power(Max. 50mA) 1ea
Alarm Triggers	Analytics, Network disconnect, Alarm input

Alarm Events	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
Audio In	Selectable(mic in/line in)
Audio Out	Line out
IR Viewable Length	30m(98.42ft)

<b>Network</b>	
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)

<b>General</b>	
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

<b>Environmental &amp; Electrical</b>	
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
EPA(Effective Projected Area)	0.031 m2
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

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

<b>Wisenet Road AI LPR/ANPR/MMCR</b>		
Solution	Community Traffic	Parking Application

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.

Speed Description	Moderate Speed	Low speed
Lane Coverage	1 lane (3.6m/12ft Wide) (with built in IR)	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, New Zealand, Indonesia, Vietnam, Bahrain, Kuwait, Oman, Qatar, KSA (Kingdom of Saudi Arabia), UAE, South Africa, Hongkong/Taiwan (MMCR is not available)	

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CAD

Unit:mm [inch]

