

# PNO-A9081RLP

4K LPR/ANPR IR Bullet Camera

Network



FC | eUL | CE | EAC

## 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

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 detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection
Alarm I/O	Input 1ea / Output 1ea / DC 12V Power(Max. 50mA) 1ea
Alarm Triggers	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)
<b>Network</b>	
<b>Ethernet</b>	Metal shielded RJ-45(10/100/1000 BASE-T)
<b>Video Compression</b>	H.265/H.264: Main/High, MJPEG
<b>Audio Compression</b>	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
<b>Smart Codec</b>	Manual(5ea area), WiseStream II
<b>Bitrate Control</b>	H.264/H.265: CBR or VBR MJPEG: VBR
<b>Streaming</b>	Unicast(6 users) / Multicast 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>Security</b>	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
<b>Application Programming Interface</b>	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
<b>General</b>	
<b>Webpage Language</b>	English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
<b>Edge Storage</b>	Pre-installed with 32GB Micro SD to support 10,000 LPR images
<b>Memory</b>	4096MB RAM, 512MB Flash
<b>Environmental &amp; Electrical</b>	
<b>Operating Temperature / Humidity</b>	-40°C ~ +55°C(-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C
<b>Storage Temperature / Humidity</b>	-50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH
<b>Certification</b>	IP66/IP67, IK10, NEMA4X
<b>Input Voltage</b>	PoE+(IEEE802.3at), 12VDC

<b>Power Consumption</b>	PoE+: Max 20.0W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W
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**Mechanical**

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

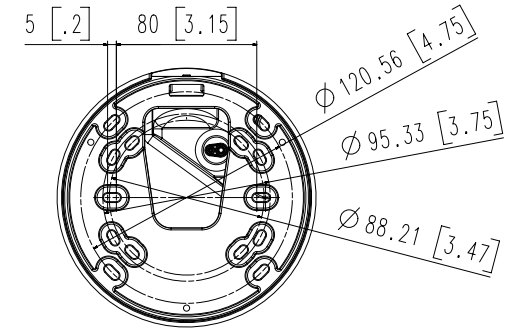
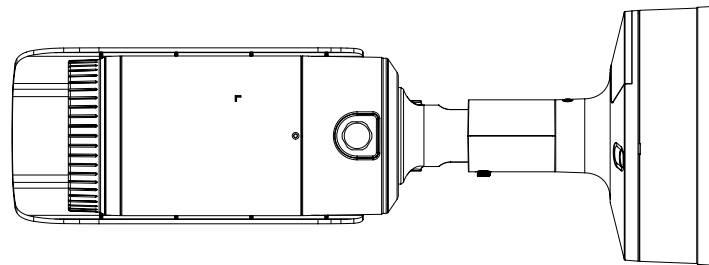
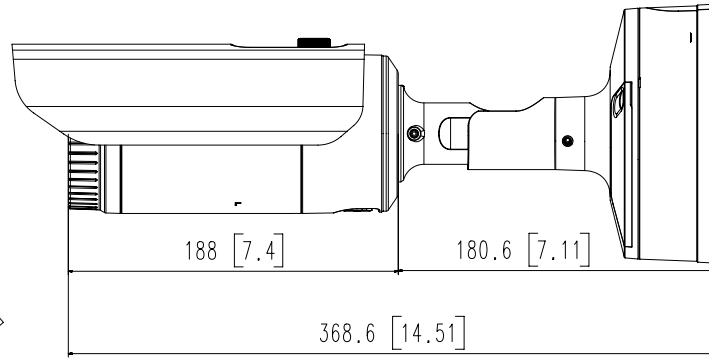
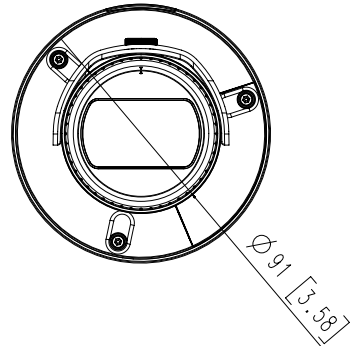
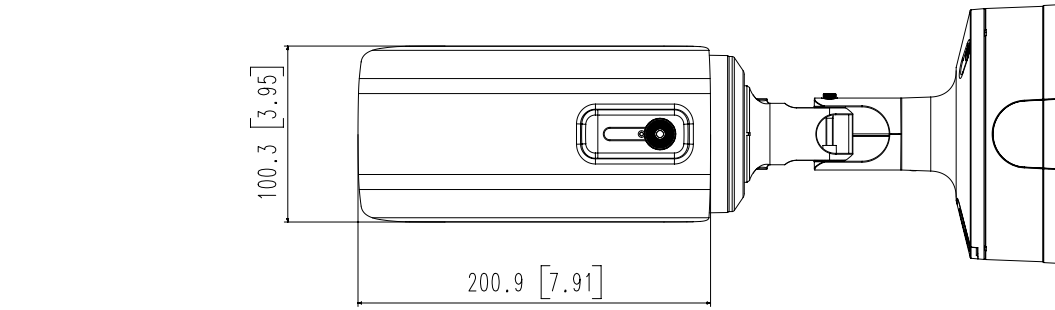
**DORI (EN62676-4 standard)**

<b>Detect (25PPM/ 8PPF)</b>	Wide: 62.9m(206.34ft) / Tele: 183m(600.33ft)
<b>Observe (63PPM/ 19PPF)</b>	Wide: 25.1m(82.34ft) / Tele: 73.3m(240.46ft)
<b>Recognize (125PPM/ 38PPF)</b>	Wide: 12.6m(41.33ft) / Tele: 36.6m(120.07ft)
<b>Identify (250PPM/ 76PPF)</b>	Wide: 6.3m(20.67ft) / Tele: 18.3m(60.03ft)

**Wisenet Road AI LPR/ANPR/MMCR**

<b>Solution</b>	Community Traffic Observation	Parking Application
<b>Speed Description</b>	Moderate Speed	Low speed
<b>Lane Coverage</b>	Up to 2 lanes (5m/18ft Wide)	Up to 2 lanes (7m/24ft Wide)
<b>Speed limit</b>	Up to 70kmh (45mph)	Up to 40kmh (25mph)
<b>Min. Forward Distance</b>	12m (38ft)	10m (33ft)
<b>Max. Forward Distance</b>	17m (55ft)	16m (52ft)
<b>Max. Horizontal Angle</b>	25°	30°
<b>Max. Vertical Angle</b>	25°	30°
<b>Horizontal Offset</b>	Up to 5m (18ft)	Up to 7m (24ft)
<b>Camera Height</b>	Up to 5m (18ft)	Up to 7m (24ft)
<b>Vehicle Recognition</b>	Make : 70+ Model : 600+ Color : 10	
<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, Australia, Newziland, Hongkong, Indonesia, Vietnam, Taiwan, Bahrain, Kuwait, Oman, Qatar, KSA (Kingdom of Saudi Arabia), UAE, South Africa	

- The latest product information / specification can be found at [hanwha-security.com](http://hanwha-security.com)
- Design and specifications are subject to change without notice.
- Wisenet is the proprietary brand of Hanwha Techwin, formerly known as Samsung Techwin.



3	PNO-A6081R	'21.04.26
2	XNO-9082R/8082R	'20.05.21
1	PNO-A9081R/A8081R	'19.10.14
No.	MODEL NAME	DATE
Unit:mm[inch]		SCALE:1/1
Hanwha Techwin		

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