# PNO-A6081R

2MP Network AI IR Bullet Camera



## Key Features

- Max. 2MP resolution, Up to 120fps
- 0.007Lux@F1.3, 1/30sec. (Color), 0Lux (B/W, IR LED on)
- Day & Night (ICR), WDR (120dB), WiseNR II (Using AI engine)
- H.265, H.264, MJPEG, WiseStream II , WiseStream III (Using AI engine)
- Video Analytics based on AI
  - Object detection and classification (Person, Face, Vehicle, License Plate)
  - Face mask detection, Social distancing detection
  - Attribute, BestShot
- Compatible with Wisenet Retail Insight v2.0 for Business Intelligence
  - Age/gender based People counting
  - Heatmap, Queue management
- TPM with FIPS 140-2 level2, Secure boot, Verify firmware forgery
- System requirements
  - SSM v2.10.8 or later, Genetec plugin v1.0 or later, Milestone plugin v1.0.2 or later, NVR model (XRN-6410DB4/B4, XRN-3210B4)
- IP66, IP67, IK10, NEMA4X

## Compatible Accessories (Optional)



SBP-302PM

©2021Hanwha Techwin Co., Ltd. All rights reserved. 

| Video | |
|---|---|
| Imaging Device | 1/2" CMOS |
| Resolution | 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360 |
| Max. Framerate | H.265/H.264: Max. 60/50fps(60Hz/50Hz, AI analytics on), Max. 120/100fps(60Hz/50Hz, AI analytics off)<br>MJPEG: Max. 15fps/12fps(60Hz/50Hz) |
| Min. Illumination | Color: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps<br>Color: 0.014Lux(F1.3, 1/60sec, 30IRE) B/W : 0.0014Lux(F1.3, 1/60sec, 30IRE), 0Lux(IR LED on), 60/50fps<br>Color: 0.028Lux(F1.3, 1/120sec,30IRE) B/W : 0.0028Lux(F1.3, 1/120sec, 30IRE), 0Lux(IR LED on), 120/100fps |
| Video Out | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation<br>USB: Micro USB Type B, 1280x720 for installation |
| **Lens** | |
| Focal Length (Zoom Ratio) | 4.38~9.33mm(2.13x) motorized varifocal |
| Max. Aperture Ratio | F1.3(Wide)~F2.15(Tele) |
| Angular Field of View | H:103.1°(Wide)~44.5°(Tele) / V:54.2°(Wide)~24.9°(Tele) / D:124°(Wide)~51.1°(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, SSDR |
| Wide Dynamic Range | 120dB |
| Digital Noise Reduction | SSNR, WiseNR II (using AI engine) |
| Digital Image Stabilization | Stabilization Support(built-in gyro sensor) |
| Motion Detection | 8ea, polygonal zones |
| Privacy Masking | 6ea, rectangle zones<br>- Color: Gray/Green/Red/Blue/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)<br>Auto prefer shutter control based on AI engine |
| Video Rotation | Flip, Mirror, Hallway view(90/270) |
| Analytics | - Classified object type : Person/Face/Vehicle/License plate with attributes, BestShot per object<br>- Analytics events based on AI engine : Object detection, Face mask detection, Directional detection, Digital auto tracking, Enter/Exit, Loitering, Virtual line, Social distancing detection<br>- Analytics events : Defocus detection, Motion detection, Appear/Disappear, Tampering, Audio detection, Sound classification, Shock detection |

©2021 Hanwha Techwin Co., Ltd. All rights reserved. 

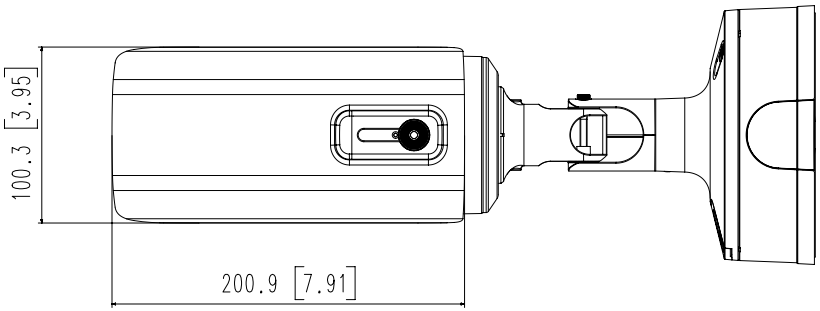
| | |
|---|---|
| Business Intelligence | People counting, Queue management, Heatmap based on AI engine |
| Alarm I/O | Input 1ea / Output 1ea / DC 12V Power(Max. 50mA) 1ea |
| Alarm Triggers | Analytics, Network disconnect, Alarm input |
| Alarm Events | File upload via FTP and e-mail<br>Notification via e-mail<br>SD/SDHC/SDXC or NAS recording at event triggers<br>Alarm output<br>Handover<br>Audio playback |
| Audio In | Selectable(mic in/line in)<br>Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm |
| Audio Out | Line out, Max.output level: 1Vrms |
| IR Viewable Length | 40m(131.23ft), Wise IR |
| **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<br>G.726(ADPCM) 8KHz, G.711 8KHz<br>G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps<br>AAC-LC: 48Kbps at 16KHz |
| Smart Codec | Manual(5ea area), WiseStream II , WiseStream III (using AI engine) |
| Bitrate Control | H.264/H.265: CBR or VBR<br>MJPEG: VBR |
| Streaming | Unicast(6 users) / Multicast<br>Multiple streaming(Up to 5 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<br>Digest Login Authentication<br>IP Address Filtering<br>User access log<br>802.1X Authentication(EAP-TLS, EAP-LEAP)<br>Device Certificate(Hanwha Techwin Root CA)<br>TPM with FIPS 140-2 level2<br>Secure boot, Verify firmware forgery |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI(HTTP API)<br>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 | Micro SD/SDHC/SDXC 2slots 512GB |
| Memory | 4096MB RAM, 512MB Flash |
| **Environmental & Electrical** | |
| Operating Temperature / Humidity | -50°C ~ +55°C(-58°F ~ +131°F) / Less than 90% RH<br>* Start up should be done at above -30°C |

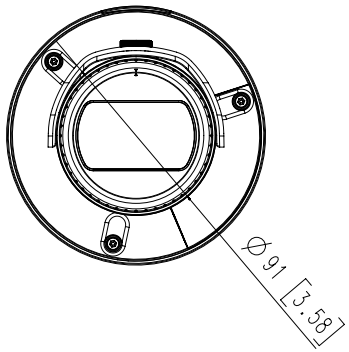
©2021 Hanwha Techwin Co., Ltd. All rights reserved. 

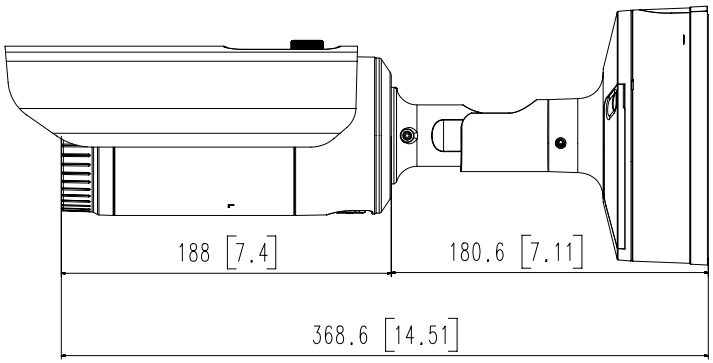
| | |
|---|---|
| Storage Temperature / Humidity | -50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH |
| Certification | IP66/IP67, IK10, NEMA4X |
| Input Voltage | PoE+(IEEE802.3at), 12VDC |
| Power Consumption | PoE+: Max 19.50W, typical 16.00W<br>12VDC: Max 17.00W, typical 13.50W |
| **Mechanical** | |
| Color / Material | Dark gray / Aluminum, Hard-coated window |
| Product Dimensions / Weight | Ø91.0x368.6mm (3.58" x 14.51") (Without sunshield), Weight : 2.48Kg (5.47lb) |
| **DORI (EN62676-4 standard)** | |
| Detect (25PPM/ 8PPF) | Wide: 30.5m(100.03ft) / Tele: 93.9m(307.95ft) |
| Observe (63PPM/ 19PPF) | Wide: 12.2m(40.01ft) / Tele: 37.5m(123.18ft) |
| Recognize (125PPM/ 38PPF) | Wide: 6.1m(20.01ft) / Tele: 18.8m(61.59ft) |
| Identify (250PPM/ 76PPF) | Wide: 3.0m(10.00ft) / Tele: 9.4m(30.79ft) |

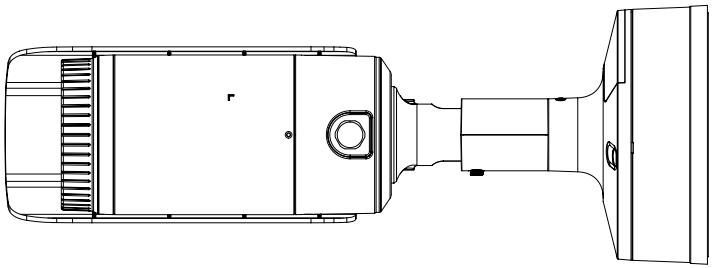
- The lastest product information / specification can be found at hanwha-security.com
- Design and specifications are subject to change without notice.
- Wisenet is the proprietary brand of Hanwha Techwin, formerly known as Samsung Techwin.

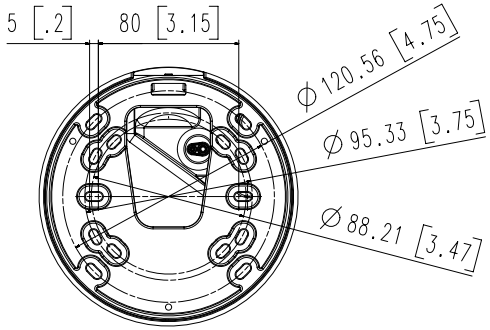
©2021 Hanwha Techwin Co., Ltd. All rights reserved. 






| | | |
|---|---|---|
| 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 |

-Y/C:071130-

A0

© Hanwha Techwin Co.,Ltd. All rights reserved.

© 2021 Hanwha Techwin Co., Ltd. All rights reserved. 08-2021



WISENET