

## PNO-9080R

4K Network IR Bullet Camera

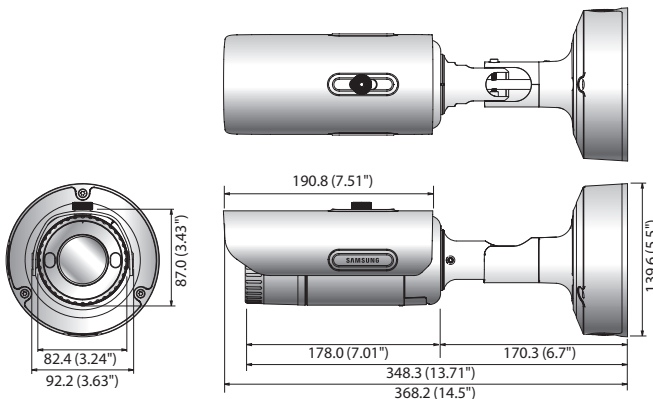


## Key Features

- Max. 12megapixel (4000 x 3000) resolution
- Max. 20fps@12M, Max.30fps@8M
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- 4.5 ~ 10mm (2.2x) motorized varifocal lens
- H.265, H.264, MJPEG support
- Day & Night (ICR), WDR (120dB), Simple focus, P-Iris
- Motion detection, Defocus detection, Tampering
- SD/SDHC/SDXC memory slot (Max, 128GB), NAS, Local PC support
- Hallway view (Rotate 90° / 270°)
- WiseStream support, Digital auto tracking
- IP66, IK10, Bi-directional audio support

## Dimensions

Unit : mm (inch)



## Accessories (Optional)



SBP-302PM

| PNO-9080R                              |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>VIDEO</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Imaging Device                         | 1/1.7" 12.4M CMOS                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Total Pixels / Effective Pixels        | 4,168(H) x 3,062(V) / 4,072(H) x 3,046(V)                                                                                                                                                                                                                                                                                                                                                                                                  |
| Scanning System                        | Progressive                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Min. Illumination                      | Color : 0.3Lux (1/30sec, F1.6, 30IRE), 0.01Lux (2sec, F1.6, 30IRE)<br>B/W : 0Lux (IR LED on)                                                                                                                                                                                                                                                                                                                                               |
| S / N Ratio                            | 50dB                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Video Output                           | CVBS: 1.0 Vpp / 75Ω composite, 714 x 480(N), 702 x 576(P), for installation DIP connector type                                                                                                                                                                                                                                                                                                                                             |
| <b>LENS</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Focal Length (Zoom Ratio)              | 4.5 ~ 10mm (2.2x) motorized varifocal                                                                                                                                                                                                                                                                                                                                                                                                      |
| Max. Aperture Ratio                    | F1.6                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Angular Field of View                  | [4096 x 2160] H: 100.3°(Wide) ~ 45.6°(Tele) / V: 49.7°(Wide) ~ 24.0°(Tele)<br>[3840 x 2160] H: 92.3°(Wide) ~ 42.6°(Tele) / V: 49.7°(Wide) ~ 24.0°(Tele)                                                                                                                                                                                                                                                                                    |
| Min. Object Distance                   | 0.5m (1.64ft)                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Focus Control                          | Simple focus (Motorized V/F) / Manual, Remote control via network (Manual, Simple focus)                                                                                                                                                                                                                                                                                                                                                   |
| Lens Type / Mount Type                 | P-Iris mode / Board-in type                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>OPERATIONAL</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Viewable Length                        | 40m (131.23ft)                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Camera Title                           | Off / On (Displayed up to 60 characters)<br>- W/W : English / Numeric / Special characters<br>- China : English / Numeric / Special / Chinese characters<br>- Common : Multi-line (Max. 5), Color (Grey / Green / Red / Blue / Black / White), Transparency, Auto scale by resolution                                                                                                                                                      |
| Day & Night                            | Auto (ICR) / Color / B/W / External / Schedule                                                                                                                                                                                                                                                                                                                                                                                             |
| Backlight Compensation                 | Off / BLC / WDR                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Wide Dynamic Range                     | 120dB                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Contrast Enhancement                   | SSDR (Off / On)                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Digital Noise Reduction                | SSNR (2D+3D noise filter) (Off / On)                                                                                                                                                                                                                                                                                                                                                                                                       |
| Defog                                  | Off / Auto / Manual                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Motion Detection                       | Off / On (8ea, Polygonal)                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Privacy Masking                        | Off / On (16ea, Polygonal) - Color: Gray / Green / Red / Blue / Black / White                                                                                                                                                                                                                                                                                                                                                              |
| Gain Control                           | Off / Low / Middle / High                                                                                                                                                                                                                                                                                                                                                                                                                  |
| White Balance                          | ATW / AWC / Manual / Indoor / Outdoor (Include mercury & sodium)                                                                                                                                                                                                                                                                                                                                                                           |
| Electronic Shutter Speed               | Minimum / Maximum / Anti flicker (2 ~ 1/12,000sec)                                                                                                                                                                                                                                                                                                                                                                                         |
| Flip / Mirror                          | Off / On, Hallway: 90° / 270°                                                                                                                                                                                                                                                                                                                                                                                                              |
| Intelligent Video Analytics            | Tampering (Scene change), Virtual line, Enter / Exit, (Dis)Appear, Audio detection, Defocus detection, Digital auto tracking - with metadata                                                                                                                                                                                                                                                                                               |
| Alarm I/O                              | Input 1ea / Output 1ea                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Alarm Triggers                         | Alarm input, Motion detection, Video analytics, Audio detection, Network disconnect                                                                                                                                                                                                                                                                                                                                                        |
| Alarm Events                           | File upload via FTP and E-mail, Notification via E-mail Local storage (SD/SDHC/SDXC) or NAS recording at event triggers, External output                                                                                                                                                                                                                                                                                                   |
| Pixel Counter                          | Support (Plug-in viewer only)                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>NETWORK</b>                         |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Ethernet                               | RJ-45 (10/100/1000BASE-T)                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Video Compression Format               | H.265 / H.264 (MPEG-4 part 10/AVC) : Main / Baseline / High, MJPEG                                                                                                                                                                                                                                                                                                                                                                         |
| Resolution                             | [8M mode] 4096 x 2160, 3840 x 2160, 2592 x 1944, 2592 x 1464, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 448, 720 x 576, 720 x 480, 640 x 480, 640 x 360, 320 x 240 [12M mode] 4000 x 3000, 3840 x 2160, 2592 x 1944, 2592 x 1464, 1920 x 1080, 1600 x 1200, 1280 x 1024, 1280 x 960, 1280 x 720, 1024 x 768, 800 x 600, 800 x 448, 720 x 576, 720 x 480, 640 x 480, 640 x 360, 320 x 240 |
| Max. Framerate                         | H.265 / H.264: 20fps@4000 x 3000, 30fps@4096 x 2160<br>MJPEG: 2fps@4000 x 3000 ~ 2592 x 1464, 15fps@1920 x 1080 ~ 320 x 240                                                                                                                                                                                                                                                                                                                |
| Smart Codec / WiseStream               | Manual mode (Area-based: 5ea) / Support                                                                                                                                                                                                                                                                                                                                                                                                    |
| Video Quality Adjustment               | H.265 / H.264: Target bitrate level control, MJPEG: Quality level control                                                                                                                                                                                                                                                                                                                                                                  |
| Bitrate Control Method                 | H.265 / H.264: CBR or VBR, MJPEG: VBR                                                                                                                                                                                                                                                                                                                                                                                                      |
| Streaming Capability                   | Multiple streaming (Up to 3 profiles)                                                                                                                                                                                                                                                                                                                                                                                                      |
| Audio In                               | Selectable (Mic in / Line in), Supply voltage: 2.5V DC (4mA), Input impedance: approx. 2K Ohm                                                                                                                                                                                                                                                                                                                                              |
| Audio Out                              | Line out (3.5mm mono jack), Max output level: 1Vrms                                                                                                                                                                                                                                                                                                                                                                                        |
| Audio Compression Format               | 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                                                                                                                                                                                                                                                                                                               |
| Audio Communication                    | Bi-directional audio (2-way)                                                                                                                                                                                                                                                                                                                                                                                                               |
| IP                                     | IPv4, IPv6                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Protocol                               | TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour                                                                                                                                                                                                                                                            |
| Security                               | HTTP(S) login authentication, Digest login authentication IP address filtering, User access log, 802.1x authentication (EAP-TLS, EAP-LEAP)                                                                                                                                                                                                                                                                                                 |
| Streaming Method                       | Unicast / Multicast                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Max. User Access                       | 20 users at unicast mode                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Edge Storage                           | SD/SDHC/SDXC (128GB) - Motion images recorded in the SD/SDHC/SDXC memory card can be downloaded, Camera can detect automatically when the memory is connected, Memory status display (Normal / Error / Active / Formatting / Lock), NAS (Network Attached Storage), Local PC for instant recording (Plug-in viewer only)                                                                                                                   |
| Application Programming Interface      | ONVIF profile S/G, SUNAPI (HTTP API), SVNP, Wisenet Open Platform                                                                                                                                                                                                                                                                                                                                                                          |
| Webpage Language                       | English, French, German, Spanish, Italian, Chinese, Russian, Japanese, Swedish, Portuguese, Turkish, Polish, Czech, Dutch, Hungary, Greek                                                                                                                                                                                                                                                                                                  |
| Web Viewer                             | Supported OS: Windows 7, 8.1, 10, Mac OS X 10.9, 10.10, 10.11<br>Plug-in free Webviewer<br>- Supported Browser: Google Chrome 47, MS Edge 20<br>Plug-in Webviewer<br>- Supported Browser: MS Explore 11, Mozilla Firefox 43, Apple Safari 9 * Mac OS X only                                                                                                                                                                                |
| Central Management Software            | SmartViewer                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ENVIRONMENTAL</b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Operating Temperature / Humidity       | -40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -35°C (-31°F)                                                                                                                                                                                                                                                                                                                                         |
| Storage Temperature / Humidity         | -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH                                                                                                                                                                                                                                                                                                                                                                                          |
| Ingress Protection / Vandal Resistance | IP66 / IK10                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>ELECTRICAL</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Input Voltage / Current                | 24V AC, 12V DC, PoE (IEEE802.3af, Class3)                                                                                                                                                                                                                                                                                                                                                                                                  |
| Power Consumption                      | 12V DC: Max. 11.55W, PoE: Max.12.95W, 24V AC (50/60Hz): 14.08W - Heater on 12V DC: Max. 10.45W, PoE: Max.11.77W, 24V AC (50/60Hz): 12.43W - Heater off                                                                                                                                                                                                                                                                                     |
| <b>MECHANICAL</b>                      |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Color / Material                       | Dark gray / Aluminium                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Dimensions (WxHxD)                     | 82.4 x 87.0 x 348.3mm (3.24" x 3.43" x 13.71") (Without sunshield)                                                                                                                                                                                                                                                                                                                                                                         |
| Weight                                 | 1.4Kg (3.09lb)                                                                                                                                                                                                                                                                                                                                                                                                                             |

\* The latest product information / specification can be found at [hanwha-security.eu](http://hanwha-security.eu)