

# PND-A9081RV

4K Network AI IR Dome Camera



## Key Features

- Max. 4K resolution
- 0.05Lux@F1.6 (Color), 0Lux (B/W, IR LED on)
- Day & Night(ICR), WDR(120dB)
- H.265, H.264, MJPEG codec, WiseStream II
- Video Analytics based on AI
  - Object detection and classification(Person, Face, Vehicle, License Plate)
  - Attribute, BestShot
- Compatible with Wisenet Retail Insight v2.0 for Business Intelligence
  - Age/gender based People counting
  - Heatmap
  - Queue management
- Modular structure for easy installation
- Requires camera firmware v1.41.03 or later to use Face Mask Detection
- 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)

## Accessories (Optional)



SPB-IND85W



SBC-160B



SBP-167HMW



AI Plug-in



SBP-300WMW1



SBP-300CMW



SBP-300LMW



SBP-300BW



SBP-300NBW



SBP-300PMW



SBP-300KMW

|                             |  |
|-----------------------------|--|
| <b>Video</b>                |  |
| 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)<br>MJPEG: Max. 15fps/12fps(60Hz/50Hz)   |
| Min. Illumination           | Color: 0.05Lux(F1.6, 1/30sec)<br>BW: 0Lux(IR LED on)   |
| Video Out                   | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation<br>USB: Micro USB Type B, 1280x720 for installation  |
| <b>Lens</b>                 |  |
| 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) /<br>D:120.7° (Wide)~52.3° (Tele)   |
| Min. Object Distance        | 0.5m(1.64ft)   |
| Focus Control               | Simple focus   |
| Lens Type                   | DC auto iris, P iris   |
| <b>Pan / Tilt / Rotate</b>  |  |
| Pan / Tilt / Rotate Range   | 0° ~360° / -45° ~85° / 0° ~355°  |
| <b>Operational</b>          |  |
| Camera Title                | Displayed up to 85 characters  |
| Day & Night                 | Auto(ICR)  |
| Backlight Compensation      | BLC, HLC, WDR, DWDR, SSSDR   |
| Digital Noise Reduction     | SSNRV  |
| 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)   |
| 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<br>- Analytics events : Defocus detection, Motion detection, Appear/Disappear, Tampering, Audio detection, Sound classification, Shock detection |
| 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/built-in mic)<br>Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm   |
| Audio Out                             | Line out, Max.output level: 1Vrms  |
| 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<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  |
| Bitrate Control                       | H.264/H.265: CBR or VBR<br>MJPEG: VBR  |
| Streaming                             | Unicast(6 users) / Multicast<br>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<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)              |
| Application Programming Interface     | ONVIF Profile S/G/T<br>SUNAPI(HTTP API)<br>Wisenet open platform   |
| <b>General</b>                        |  |
| Webpage Language                      | English, French, German, Spanish, Italian, Chinese, Korean, Russian, Japanese, Swedish, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek  |
| Web Viewer                            | Supported OS: Windows 8.1, 10, Mac OS X 10.12, 10.13, 10.14<br>Recommended Browser: Google Chrome<br>Supported Browser : MS Explore11, MS Edge, Mozilla Firefox(Window 64bit only), Apple Safari (Mac OS X only) |
| Edge Storage                          | Micro SD/SDHC/SDXC 2slots 512GB  |
| Memory                                | 4096MB RAM, 512MB Flash  |
| <b>Environmental &amp; Electrical</b> |  |

|                                  |   |
|----------------------------------|---|
| Operating Temperature / Humidity | -25°C ~ +50°C (-13°F ~ +122°F) / Less than 90% RH                     |
| Storage Temperature / Humidity   | -50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH                     |
| Certification                    | IP52, IK10  |
| Input Voltage                    | PoE+ (IEEE802.3at), 12VDC   |
| Power Consumption                | PoE+: Max 20.00W, typical 16.00W<br>12VDC: Max 17.70W, typical 14.00W |

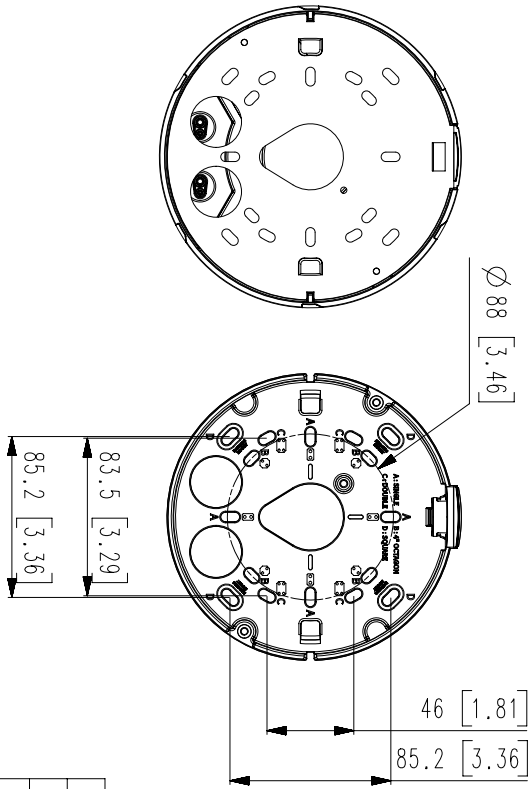
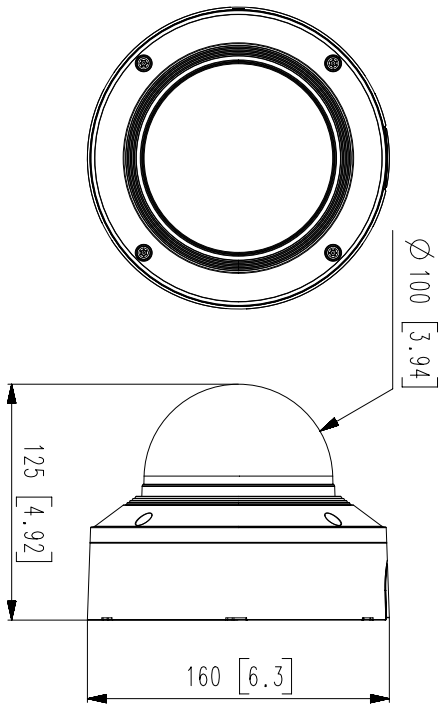
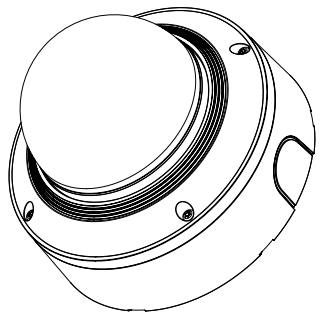
**Mechanical**

|                             |  |
|-----------------------------|--|
| Color / Material            | White / Aluminum                                 |
| RAL Code                    | RAL9003  |
| Product dimensions / weight | Ø160x125mm(6.30x4.92"), Weight : 1.60Kg (3.53lb) |

**DORI (EN62676-4 standard)**

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

- 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.



|     |             |          |
|-----|-------------|----------|
| 16  |             |          |
| 15  |             |          |
| 14  |             |          |
| 13  | XND-9082RV  | 19.12.   |
| 12  | XND-7082RV  | 19.12.   |
| 11  | XND-6082RV  | 19.12.   |
| 10  | PND-A7081RV | 19.12.   |
| 9   | PND-A6081RV | 19.12.   |
| 8   | XND-8081REV | 19.12.   |
| 7   | XND-6081REV | 19.12.1  |
| 6   | PND-A9081R  | 19.09.27 |
| 5   | XND-8081RV  | 19.09.27 |
| 4   | XND-6081RV  | 19.09.27 |
| 3   | XND-6081V   | 19.09.27 |
| 2   | XND-8081VZ  | 19.09.27 |
| 1   | XND-6081VZ  | 19.09.27 |
| No. | MODEL NAME  | DATE     |

Unit: mm [inch] SCALE: 1/1 Hanwha Techwin