

# PND-A9081RF

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, WiseStreamII
- 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

## Accessories (Optional)



SPB-FCD85W

**Video**

|                   |                                                                                                                             |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Imaging Device    | 1/1.8" 8MP CMOS                                                                                                             |
| 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 |

**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) /<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                                                                   |

**Pan / Tilt / Rotate**

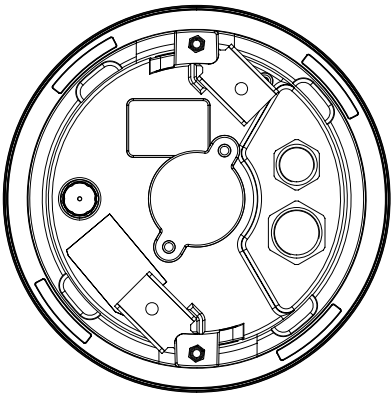
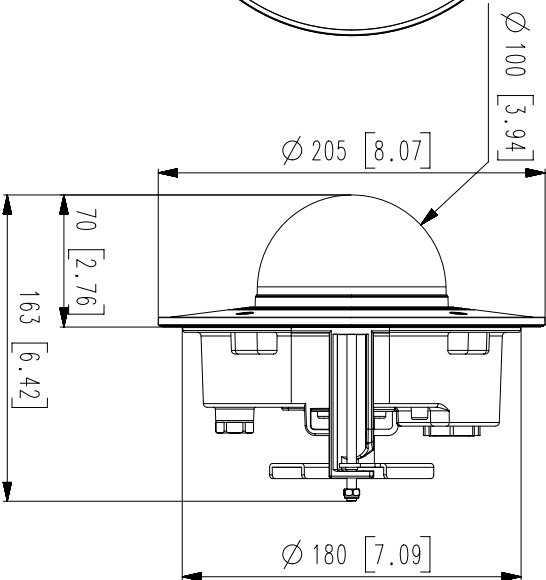
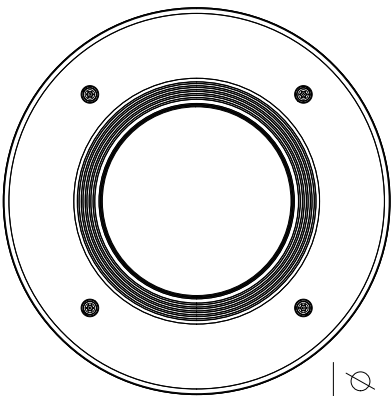
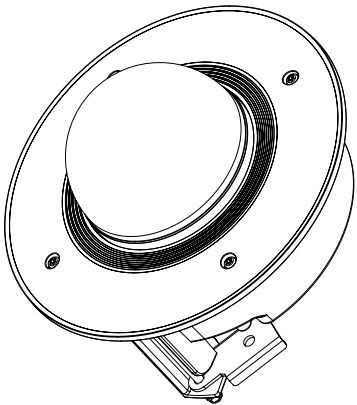
|                           |                              |
|---------------------------|------------------------------|
| Pan / Tilt / Rotate Range | 0°~360° / -45°~85° / 0°~355° |
|---------------------------|------------------------------|

**Operational**

|                             |                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Camera Title                | Off / On (Up to 85 characters)                                                                                                                                                                                                                                                                                                                                                                    |
| Day & Night                 | Auto(ICR)                                                                                                                                                                                                                                                                                                                                                                                         |
| Backlight Compensation      | BLC, WDR, SSDR                                                                                                                                                                                                                                                                                                                                                                                    |
| Wide Dynamic Range          | 120dB                                                                                                                                                                                                                                                                                                                                                                                             |
| Digital Noise Reduction     | SSNR V                                                                                                                                                                                                                                                                                                                                                                                            |
| Digital Image Stabilization | Support(built-in gyro sensor)                                                                                                                                                                                                                                                                                                                                                                     |
| Motion Detection            | 8ea, polygonal zones                                                                                                                                                                                                                                                                                                                                                                              |
| Privacy Masking             | 6ea, rectangle zones<br>- Color: Grey/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, 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                                                                                                                                                                                                                                                          |

|                                   |                                                                                                                                                                                                            |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                | 30m(98.42ft)                                                                                                                                                                                               |
| <b>Network</b>                    |                                                                                                                                                                                                            |
| Ethernet                          | RJ-45(10/100/1000BASE-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), WiseStreamII                                                                                                                                                                             |
| Bitrate Control                   | H.264/H.265: CBR or VBR<br>MJPEG: VBR                                                                                                                                                                      |
| Streaming                         | Unicast(20 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>Mechanical</b>                 |                                                                                                                                                                                                            |
| Color / Material                  | White / Aluminum                                                                                                                                                                                           |
| RAL Code                          | RAL9003                                                                                                                                                                                                    |
| Product dimensions / weight       | Ø205x163mm(8.07x4.92"), Weight : 1.95Kg (4.30lb)                                                                                                                                                           |
| <b>DORI</b>                       |                                                                                                                                                                                                            |
| 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.



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| 7   |             |          |
| 6   | XND-9082RF  | 19.12.18 |
| 5   | XND-7082RF  | 19.12.18 |
| 4   | XND-6082RF  | 19.12.18 |
| 3   | PND-A7081RF | 19.12.18 |
| 2   | PND-A6081RF | 19.12.18 |
| 1   | PND-A9081RF | 19.09.27 |
| No. | MODEL NAME  | DATE     |

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