



Network

Купольные

# PND-A6081RF

2MP AI IR Dome Camera



## Key Features

- Maximum 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, WiseStreamIII (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
- 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)
- Hard-coated dome bubble, IP52, IK10, Plenum rate

## Compatible Devices



Occupancy  
Monitoring  
Application

SPB-FCD85W

# PND-A6081RF

2MP AI IR Dome Camera



## Specifications

### Video

|                         |                       |                                                                                                          |
|-------------------------|-----------------------|----------------------------------------------------------------------------------------------------------|
| Imaging Device          | Size                  | 1/2"                                                                                                     |
|                         | Type                  | CMOS                                                                                                     |
| Resolution              |                       | 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360 |
| Max. Framerate          | H.265/H.264           | 120fps/100fps(60Hz/50Hz)                                                                                 |
|                         | MJPEG                 | 15fps                                                                                                    |
|                         | Others                | Max. 60/50fps(60Hz/50Hz) when AI on                                                                      |
| Min. Illumination (Lux) | Color(1/30sec, 30IRE) | 0.007                                                                                                    |
|                         | BW(1/30sec, 30IRE)    | 0.0007                                                                                                   |
| Video Out               |                       | CVBS: 1.0 Vp-p / 75Ω composite for installation,<br>USB: Micro USB Type B                                |

### Lens

|                               |            |                      |
|-------------------------------|------------|----------------------|
| Focal Length (mm)             |            | 4.38~9.33            |
| Zoom Ratio                    | Optical    | 2.13x                |
| Max Aperture Ratio (F number) | Wide       | 1.3                  |
|                               | Tele       | 2.15                 |
| Angular Field of View         | Horizontal | 103.1°~44.5°         |
|                               | Vertical   | 54.2°~24.9°          |
|                               | Diagonal   | 124°~51.1°           |
| Min. Object Distance          |            | 0.5m(1.64ft)         |
| Focus Control                 |            | Simple focus         |
| Lens Type                     |            | P iris(IR corrected) |

### Pan / Tilt / Rotate

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

### Operational

|             |           |
|-------------|-----------|
| Day & Night | Auto(ICR) |
|-------------|-----------|

## Operational

|                                          |                |                                                                                                                                                                                                                                       |
|------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Backlight Compensation                   |                | BLC, WDR, SSDR                                                                                                                                                                                                                        |
| Wide Dynamic Range (dB)                  |                | 120                                                                                                                                                                                                                                   |
| Digital Noise Reduction                  |                | WiseNR II (Based on AI engine), SSNR V                                                                                                                                                                                                |
| Digital Image Stabilization              |                | Support(built-in gyro sensor)                                                                                                                                                                                                         |
| Motion Detection                         | Quantity       | 8ea                                                                                                                                                                                                                                   |
|                                          | Shape          | 8point Polygonal zones                                                                                                                                                                                                                |
| Privacy Masking                          | Quantity       | 6ea                                                                                                                                                                                                                                   |
|                                          | Shape          | Rectangular zones                                                                                                                                                                                                                     |
|                                          | Color / Option | Gray, Black, White                                                                                                                                                                                                                    |
| Gain Control                             |                | Low, Middle, High                                                                                                                                                                                                                     |
| White Balance                            |                | ATW, AWC, Manual, Indoor, Outdoor                                                                                                                                                                                                     |
| LDC                                      |                | Support                                                                                                                                                                                                                               |
| Electronic Shutter                       | Mode           | Minimum, Maximum, Anti flicker, Prefer shutter control(Based on AI engine)                                                                                                                                                            |
|                                          | Speed Range    | 1/5~1/12,000sec                                                                                                                                                                                                                       |
| Video Rotation                           |                | Flip, Mirror, Hallway view(90°/270°)                                                                                                                                                                                                  |
| Alarm Interface                          | In/Out         | 2 configurable I/O ports                                                                                                                                                                                                              |
|                                          | Others         | 12VDC output                                                                                                                                                                                                                          |
| Alarm Triggers                           |                | Analytics, Network disconnect, Alarm input, App event, Time schedule, MQTT subscription                                                                                                                                               |
| Alarm Events When Alarm Trigger Occurred |                | File upload(image): e-mail/FTP,<br>Notification: e-mail,<br>Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output,<br>Handover: PTZ preset,send message by HTTP/HTTPS/TCP,Audio clip playback,<br>MQTT: publication |
| Audio In                                 |                | Selectable(mic in/line in)                                                                                                                                                                                                            |
| Audio Out                                |                | Line out                                                                                                                                                                                                                              |
| Light Type                               |                | IR LED                                                                                                                                                                                                                                |
| Light Viewable Length                    | IR             | WiseIR 40m(131.23ft)                                                                                                                                                                                                                  |
| IR Wavelength                            |                | 850nm                                                                                                                                                                                                                                 |

## Analytics

|                        |         |                                                   |
|------------------------|---------|---------------------------------------------------|
| Classified Object Type |         | Person, Face, Vehicle, License plate              |
| Attributes             | Person  | Upper/Lower clothes color, Gender, Bag            |
|                        | Vehicle | Type(car, bus, truck, motorcycle, bicycle), Color |
|                        | Face    | Age, Gender, Face mask, Glasses                   |
| Thumbnail              |         | BestShot                                          |

## Analytics

|                       |                    |                                                                                                                                                                                |
|-----------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analytics Events      | Based on AI Engine | Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip & fall detection      |
|                       | Normal             | Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear), WiseDetector for adding custom objects |
| Business Intelligence | Based on AI Engine | People counting, Queue management, Heatmap, Vehicle counting, Crowd counting                                                                                                   |

## Network

|                                   |                    |                                                                                                                                                                                                                  |
|-----------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet                          |                    | Metal shielded RJ-45(10/100/1000BASE-T)                                                                                                                                                                          |
| Video Compression                 |                    | H.265/H.264: Main/High, MJPEG                                                                                                                                                                                    |
| Audio Compression                 |                    | G.711 u-law /G.726 selectable,G.726(ADPCM) 8kHz,G.711 8kHz,<br>G.726: 16kbps,24kbps,32kbps,40kbps,<br>AAC-LC: 48kbps at 16kHz                                                                                    |
| Smart Codec                       |                    | Manual, WiseStreamIII                                                                                                                                                                                            |
| Bitrate Control                   |                    | H.265/H.264: CBR or VBR,<br>MJPEG: VBR                                                                                                                                                                           |
| Streaming                         | Unicast            | Up to 6 users                                                                                                                                                                                                    |
|                                   | Multicast          | Support                                                                                                                                                                                                          |
|                                   | Multiple Streaming | Up to 6 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), MQTT |
| Application Programming Interface | ONVIF              | S, G, T, M                                                                                                                                                                                                       |
|                                   | Others             | SUNAPI(HTTP API), Hanwha Vision Open Platform                                                                                                                                                                    |

## Security

|                        |  |                                                                         |
|------------------------|--|-------------------------------------------------------------------------|
| OS / Firmware Protect  |  | Encrypted firmware, Secure boot, Signed firmware                        |
| User authentication    |  | Digest authentication, Prevent brute-force attack                       |
| Network authentication |  | IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)                      |
| Secure Communication   |  | HTTPS, WSS(WebSocket Secure), SRTP                                      |
| Access Control         |  | IP-based access control                                                 |
| Data Protect           |  | Encryption credentials, Encrypt compress for live recording file export |
| Audit                  |  | Access / System / Event Log management                                  |
| Device ID              |  | Device certificate(Hanwha Vision Root CA)                               |
| Secure Storage         |  | TPM(Trusted platform module), SDcard partition encrypt(AES-256)         |
| Security Certificate   |  | TPM 2.0 with FIPS 140-2 level2                                          |

## General

|              |                    |                                 |
|--------------|--------------------|---------------------------------|
| Memory       | RAM                | 4GB                             |
|              | Flash              | 512MB                           |
| Edge Storage | Micro SD/SDHC/SDXC | Max. 256GB x 2slot(Total 512GB) |

## Environmental & Electrical

|                           |             |                                  |
|---------------------------|-------------|----------------------------------|
| Operating Condition       | Temperature | -25°C~+50°C(-13°F~+122°F)        |
|                           | Humidity    | 0~90% RH(non-condensing)         |
| Storage Condition         | Temperature | -50°C~+60°C(-58°F~+140°F)        |
|                           | Humidity    | 0~90% RH(non-condensing)         |
| Input Voltage             |             | PoE+(IEEE802.3at, Class4), 12VDC |
| Power Consumption         | PoE         | Max 19.50W, typical 16.00W       |
|                           | 12VDC       | Max 17.00W, typical 13.50W       |
| Power Redundance Failover |             | Support                          |

## Mechanical

|                    |                            |
|--------------------|----------------------------|
| Color              | White                      |
| Material           | Aluminum, Hard-coated dome |
| RAL Code           | RAL9003                    |
| Product Dimensions | Ø205x163mm(8.07x4.92")     |
| Product Weight     | 1,950g(4.30lb)             |

## Certifications & Standards

|             |                                                                                                                                                                                                          |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC         | FCC 47 CFR 15 Subpart B Class A, ICES-3(A)/NMB-3(A), CE/UKCA - EN55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3, VCCI CISPR 32 Class A, RCM AS-NZS CISPR 32 Class A, KS C 9832 Class A, KS C 9835 |
| Safety      | UL 62368-1, CAN/CSA C22.2 NO. 62368-1, IEC 62471                                                                                                                                                         |
| Environment | IEC/EN 63000, IEC 60529 IP52, IEC 62262 IK10                                                                                                                                                             |

## DORI (EN62676-4 standard)

|                           |      |                 |
|---------------------------|------|-----------------|
| Detect (25PPM/ 8PPF)      | Wide | 30.0m(98.43ft)  |
|                           | Tele | 95.0m(311.82ft) |
| Observe (63PPM/ 19PPF)    | Wide | 12.0m(39.37ft)  |
|                           | Tele | 38.0m(124.73ft) |
| Recognize (125PPM/ 38PPF) | Wide | 6.0m(19.69ft)   |
|                           | Tele | 19.0m(62.36ft)  |
| Identify (250PPM/ 76PPF)  | Wide | 3.0m(9.84ft)    |
|                           | Tele | 9.5m(31.18ft)   |

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CAD

Unit: mm [inch]

