



Network

# PNM-C19183RVTP

5MP 3CH fixed + 4MP 18x PTZ AI Camera



## Key Features

- Full coverage All-in-One design (5MP 3CH fixed + 4MP 18x PTZ)
- Compact size (ø250)
- Object detection (Person/Face/Vehicle/License plate), IVA (Virtual line/Area, Enter/Exit, Loitering, Direction, Intrusion),
- Business intelligence based on AI engine : People/Vehicle counting
- Support Alarm/Audio via optional SPM-4210 I/O box
- Up to 15m IR distance
- Auto calibration
- Support Smart Zoom (Advanced Handover)
- WiseStream (Based on AI engine)
- Secure element (FIPS 140-3 level3, CC EAL6+), SBOM

## Compatible Devices



SPB-MDC41V

# PNM-C19183RVTP

5MP 3CH fixed + 4MP 18x PTZ AI Camera



## Specifications

| Video                   |                       | Ch 1                                                                                                               | Ch 2                                                                                                               | Ch 3                                                                                                               | PTZ                                                                                                                                     |
|-------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Imaging Device          | Size                  | 1/2.8"                                                                                                             |                                                                                                                    |                                                                                                                    |                                                                                                                                         |
|                         | Type                  | CMOS                                                                                                               |                                                                                                                    |                                                                                                                    |                                                                                                                                         |
| Resolution              |                       | 2592x1944, 2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 | 2592x1944, 2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 | 2592x1944, 2560x1440, 1920x1080, 1280x960, 1280x720, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 | 2592x1520, 2560x1440, 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 |
| Max. Framerate          | H.265/H.264           | 30fps                                                                                                              | 30fps                                                                                                              | 30fps                                                                                                              | 30fps                                                                                                                                   |
|                         | MJPEG                 | 30fps(@5MP Max. 5fps)                                                                                              | 30fps(@5MP Max. 5fps)                                                                                              | 30fps(@5MP Max. 5fps)                                                                                              | 30fps(@4MP Max. 5fps)                                                                                                                   |
| Min. Illumination (Lux) | Color(1/30sec, 30IRE) | 0.08                                                                                                               | 0.08                                                                                                               | 0.08                                                                                                               | 0.05                                                                                                                                    |
|                         | BW(1/30sec, 30IRE)    | 0.008                                                                                                              | 0.008                                                                                                              | 0.008                                                                                                              | 0.005                                                                                                                                   |
| Video Out               |                       | USB: Micro USB Type C                                                                                              |                                                                                                                    |                                                                                                                    |                                                                                                                                         |

## Lens

|                               |            |              |              |              |                               |
|-------------------------------|------------|--------------|--------------|--------------|-------------------------------|
| Focal Length (mm)             |            | 2.4          | 2.4          | 2.4          | 5.42~98.29                    |
| Zoom Ratio                    | Optical    |              |              |              | 18x                           |
|                               | Digital    |              |              |              | 32x                           |
| Max Aperture Ratio (F number) | Wide       | 2.0          | 2.0          | 2.0          | 2.0                           |
|                               | Tele       |              |              |              | 3.27                          |
| Angular Field of View         | Horizontal | 123°         | 123°         | 123°         | 53.1°~3.39°                   |
|                               | Vertical   | 91°          | 91°          | 91°          | 31.75°~1.98°                  |
|                               | Diagonal   | 159°         | 159°         | 159°         | 60.8°~3.92°                   |
| Min. Object Distance          |            | 0.5m(1.64ft) | 0.5m(1.64ft) | 0.5m(1.64ft) | 5.0m(16.4ft)                  |
| Focus Control                 |            | Fixed        | Fixed        | Fixed        | Oneshot AF, Focus save        |
| Lens Type                     |            | Fixed iris   | Fixed iris   | Fixed iris   | DC auto iris with hall sensor |

## Pan / Tilt / Rotate

|           |        |  |  |  |                     |
|-----------|--------|--|--|--|---------------------|
| Pan Speed | Preset |  |  |  | Max. 600°/sec       |
|           | Manual |  |  |  | 0.024°/sec~250°/sec |

## Pan / Tilt / Rotate

|                 |        |  |  |  |                                                                   |
|-----------------|--------|--|--|--|-------------------------------------------------------------------|
| Tilt Speed      | Preset |  |  |  | Max. 500°/sec                                                     |
|                 | Manual |  |  |  | 0.024°/sec~250°/sec                                               |
| Sequence        |        |  |  |  | Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule |
| Preset Accuracy |        |  |  |  | ±0.2°                                                             |

## Operational

|                                          |                |                                                                                                                                                             |                                      |                                      |                                                               |
|------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|---------------------------------------------------------------|
| Direction Indicator                      |                |                                                                                                                                                             |                                      |                                      | Support                                                       |
| Day & Night                              |                | Auto(ICR)                                                                                                                                                   |                                      |                                      |                                                               |
| Backlight Compensation                   |                | BLC, WDR, SSDR                                                                                                                                              | BLC, WDR, SSDR                       | BLC, WDR, SSDR                       | BLC, HLC, WDR, SSDR                                           |
| Wide Dynamic Range (dB)                  |                | 120                                                                                                                                                         |                                      |                                      |                                                               |
| Digital Noise Reduction                  |                | WiseNR II (Based on AI engine), SSNR V                                                                                                                      |                                      |                                      |                                                               |
| Digital Image Stabilization              |                |                                                                                                                                                             |                                      |                                      | Support                                                       |
| Defog                                    |                | Support                                                                                                                                                     |                                      |                                      |                                                               |
| Motion Detection                         | Quantity       | 8ea                                                                                                                                                         |                                      |                                      |                                                               |
|                                          | Shape          | 8point Polygonal zones                                                                                                                                      |                                      |                                      |                                                               |
| Privacy Masking                          | Quantity       | 12ea                                                                                                                                                        | 12ea                                 | 12ea                                 | 32ea                                                          |
|                                          | Shape          | 4point Quadrangle zones                                                                                                                                     | 4point Quadrangle zones              | 4point Quadrangle zones              | 4point Quadrangle zones                                       |
|                                          | Color / Option | Gray, Green, Red, Blue, Black, White                                                                                                                        | Gray, Green, Red, Blue, Black, White | Gray, Green, Red, Blue, Black, White | Gray, Green, Red, Blue, Black, White, Mosaic                  |
| Gain Control                             |                | Low, Middle, High                                                                                                                                           | Low, Middle, High                    | Low, Middle, High                    | Off, Max gain, Manual                                         |
| White Balance                            |                | ATW, AWC, Manual, Indoor, Outdoor                                                                                                                           | ATW, AWC, Manual, Indoor, Outdoor    | ATW, AWC, Manual, Indoor, Outdoor    | ATW, NarrowATW, AWC, Manual, Indoor, Outdoor, Mercury, Sodium |
| LDC                                      |                | Support                                                                                                                                                     | Support                              | 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                                                  |
| Alarm Interface                          | Others         | Support alarm I/O via optional I/O box                                                                                                                      |                                      |                                      |                                                               |
| 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, Notification: e-mail, Recording: SD/SDHC/SDXC or NAS recording at event triggers,Alarm output, MQTT: publication,Smart zoom |                                      |                                      |                                                               |
| Audio In                                 |                | Support via optional I/O box                                                                                                                                |                                      |                                      |                                                               |
| Audio Out                                |                | Support via optional I/O box                                                                                                                                |                                      |                                      |                                                               |
| Light Type                               |                | IR LED                                                                                                                                                      | IR LED                               | IR LED                               |                                                               |

## Operational

|                       |    |                                                              |                                                              |                                                              |                                                                  |
|-----------------------|----|--------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------|
| Light Viewable Length | IR | 15m(49.21ft),<br>10m(32.8ft) under 3m<br>height installation | 15m(49.21ft),<br>10m(32.8ft) under 3m<br>height installation | 15m(49.21ft),<br>10m(32.8ft) under 3m<br>height installation |                                                                  |
| IR Wavelength         |    | 850nm                                                        | 850nm                                                        | 850nm                                                        |                                                                  |
| Auto Tracking         |    |                                                              |                                                              |                                                              | Object auto<br>tracking(Person/Vehicle),<br>Target lock tracking |

## Analytics

|                          |                       |                                                                                                                                |                                                                                                                                |                                                                                                                                |                                                                                                                                |
|--------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Classified Object Type   |                       | Person, Face, Vehicle, License plate                                                                                           |                                                                                                                                |                                                                                                                                |                                                                                                                                |
| Attributes               | Person                | Upper/Lower clothes<br>color                                                                                                   | Upper/Lower clothes<br>color                                                                                                   | Upper/Lower clothes<br>color                                                                                                   |                                                                                                                                |
|                          | Vehicle               | Type(car, bus, truck,<br>motorcycle, bicycle),<br>Color                                                                        | Type(car, bus, truck,<br>motorcycle, bicycle),<br>Color                                                                        | Type(car, bus, truck,<br>motorcycle, bicycle),<br>Color                                                                        | Type(car, bus, truck,<br>motorcycle, bicycle)                                                                                  |
| Thumbnail                |                       | BestShot                                                                                                                       | BestShot                                                                                                                       | BestShot                                                                                                                       | DetectionShot                                                                                                                  |
| Analytics<br>Events      | Based on AI<br>Engine | Object detection, Virtual<br>line(Crossing/Direction),<br>Virtual<br>area(Loitering/Intrusion/Enter/Exit),<br>Motion detection | Object detection, Virtual<br>line(Crossing/Direction),<br>Virtual<br>area(Loitering/Intrusion/Enter/Exit),<br>Motion detection | Object detection, Virtual<br>line(Crossing/Direction),<br>Virtual<br>area(Loitering/Intrusion/Enter/Exit),<br>Motion detection | Object detection, Virtual<br>line(Crossing/Direction),<br>Virtual<br>area(Loitering/Intrusion/Enter/Exit),<br>Motion detection |
|                          | Normal                | Tampering, Audio<br>detection, Virtual<br>area(Appear/Disappear)                                                               | Tampering, Audio<br>detection, Virtual<br>area(Appear/Disappear)                                                               | Tampering, Audio<br>detection, Virtual<br>area(Appear/Disappear)                                                               | Tampering, Fog<br>detection, Audio<br>detection                                                                                |
| Business<br>Intelligence | Based on AI<br>Engine | People counting, Queue<br>management, Heatmap,<br>Vehicle counting                                                             | People counting, Queue<br>management, Heatmap,<br>Vehicle counting                                                             | People counting, Queue<br>management, Heatmap,<br>Vehicle counting                                                             |                                                                                                                                |

## Network

|                                         |                       |                                                                                                                                                                                                                                 |                                              |                                              |                       |
|-----------------------------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|-----------------------|
| Ethernet                                |                       | Metal shielded RJ-45(10/100/1000BASE-T)                                                                                                                                                                                         |                                              |                                              |                       |
| Video Compression                       |                       | H.265/H.264: Main/Baseline/High, MJPEG                                                                                                                                                                                          |                                              |                                              |                       |
| Smart Codec                             |                       | Manual,<br>WiseStream(Based on AI<br>engine)                                                                                                                                                                                    | Manual,<br>WiseStream(Based on AI<br>engine) | Manual,<br>WiseStream(Based on AI<br>engine) | Manual, WiseStream II |
| Bitrate Control                         |                       | H.265/H.264: CBR or VBR,<br>MJPEG: VBR                                                                                                                                                                                          |                                              |                                              |                       |
| Streaming                               | Unicast               | Up to 5 users                                                                                                                                                                                                                   | Up to 5 users                                | Up to 5 users                                | Up to 5 users         |
|                                         | Multicast             | Support                                                                                                                                                                                                                         | Support                                      | Support                                      | Support               |
|                                         | Multiple<br>Streaming | Up to 4 profiles                                                                                                                                                                                                                | Up to 4 profiles                             | Up to 4 profiles                             | Up to 3 profiles      |
| Protocol                                |                       | IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, CDP, SRTP(TCP, UDP Unicast), MQTT, SMTP(StartTLS) |                                              |                                              |                       |
| Application<br>Programming<br>Interface | ONVIF                 | S, G, T, M                                                                                                                                                                                                                      |                                              |                                              |                       |
|                                         | Others                | SUNAPI(HTTP API), Hanwha Vision Open Platform                                                                                                                                                                                   |                                              |                                              |                       |
| Direct Cloud Connection                 |                       | Support                                                                                                                                                                                                                         |                                              |                                              |                       |

## 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         | SDcard partition encrypt(AES-256), Secure element                       |
| Supply Chain Security  | SBOM                                                                    |
| Security Certificate   | Secure element(FIPS 140-3 level3, CC EAL6+)                             |

## General

|              |                    |                             |     |     |       |
|--------------|--------------------|-----------------------------|-----|-----|-------|
| Memory       | RAM                | 8GB                         | 8GB | 8GB | 4GB   |
|              | Flash              | 8GB                         | 8GB | 8GB | 512MB |
| Edge Storage | Micro SD/SDHC/SDXC | Max. 1TB x 2slot(Total 2TB) |     |     |       |

## Environmental & Electrical

|                               |             |                                                                        |
|-------------------------------|-------------|------------------------------------------------------------------------|
| Operating Condition           | Temperature | -40°C~+55°C(-40°F~+131°F)                                              |
|                               | Humidity    | 0~100% RH(condensing)                                                  |
|                               | Others      | Start up should be done at above -35°C, Humidity control with AIR vent |
| Storage Condition             | Temperature | -50°C~+60°C(-58°F~+140°F)                                              |
|                               | Humidity    | 0~90% RH(non-condensing)                                               |
| EPA(Effective Projected Area) |             | 0.038m <sup>2</sup>                                                    |
| Input Voltage                 |             | PoE++(IEEE802.3bt type3, Class6)                                       |
| Power Consumption             | PoE         | 42W                                                                    |

## Mechanical

|                         |             |                                                                                                                                                            |
|-------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Color                   |             | White                                                                                                                                                      |
| Material                |             | Aluminum, Hard-coated dome                                                                                                                                 |
| Material Management     | Declaration | RoHS(EU RoHS directive 2011/65/EU and IEC/EN 63000:2018), REACH(Regulation (EC) No. 1907/2006), Conflict mineral policy(Section 1502 of US Dodd Frank Act) |
| RAL Code                |             | RAL9003                                                                                                                                                    |
| Product Dimensions      |             | ø251.4x212mm(ø9.9x8.35")                                                                                                                                   |
| Product Weight          |             | 4,800g(10.58lb)                                                                                                                                            |
| Compatible Conduit Hole |             | 19.1mm(3/4")(M25)                                                                                                                                          |

## Mechanical

|                     |                                    |
|---------------------|------------------------------------|
| Compatible Gang Box | Single, Double, 4" Octagon, Square |
|---------------------|------------------------------------|

## 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 60529 IP66, IEC 62262 IK10, NEMA 250 type 4X                                                                                                                                                         |

## DORI (EN62676-4 standard)

|                                 |      |                |                |                |                    |
|---------------------------------|------|----------------|----------------|----------------|--------------------|
| Detect<br>(25PPM/<br>8PPF)      | Wide | 28.1m(92.35ft) | 28.1m(92.35ft) | 28.1m(92.35ft) | 103.7m(340.38ft)   |
|                                 | Tele |                |                |                | 1751.8m(5474.46ft) |
| Observe<br>(63PPM/<br>19PPF)    | Wide | 11.3m(36.94ft) | 11.3m(36.94ft) | 11.3m(36.94ft) | 41.5m(136.15ft)    |
|                                 | Tele |                |                |                | 700.7m(2298.99ft)  |
| Recognize<br>(125PPM/<br>38PPF) | Wide | 5.6m(18.47ft)  | 5.6m(18.47ft)  | 5.6m(18.47ft)  | 20.7m(68.08ft)     |
|                                 | Tele |                |                |                | 350.4m(1149.49ft)  |
| Identify<br>(250PPM/<br>76PPF)  | Wide | 2.8m(9.23ft)   | 2.8m(9.23ft)   | 2.8m(9.23ft)   | 10.4m(34.04ft)     |
|                                 | Tele |                |                |                | 175.2m(574.75ft)   |

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5MP 3CH fixed + 4MP 18x PTZ AI  
Camera



CAD

Unit: mm [inch]

