



Network

# PNM-12082RVD

6MP x 2CH Multi-directional Camera



## Key Features

- WiseNR, WiseStream II, extremeWDR (120dB)
- Maximum 3328x1872 resolution
- Maximum 15fps@6M
- Color: 0.16lux (F1.67, 1/30sec, 30IRE), 0 Lux (IR LED on)
- 3.54~6.69mm motorized varifocal, 78° tilt angle
- IR viewable length: IR 25m (82ft) based on scene
- TPM 2.0 (FIPS 140-2 certified)
- IP66, IP67, IK10, NEMA4X

# PNM-12082RVD

6MP x 2CH Multi-directional Camera



## Specifications

| Video                         |                       |                                                                                                                                                                          |
|-------------------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Imaging Device                | Size                  | 1/2.8"                                                                                                                                                                   |
|                               | Type                  | CMOS                                                                                                                                                                     |
| Resolution                    |                       | 3328x1872, 3072x1728, 2688x1520, 2592x1944, 1920x1080, 1600x1200, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 |
| Max. Framerate                | H.265/H.264           | 15fps/15fps(60Hz/50Hz)                                                                                                                                                   |
|                               | MJPEG                 | 15fps                                                                                                                                                                    |
| Min. Illumination (Lux)       | Color(1/30sec, 30IRE) | 0.16                                                                                                                                                                     |
|                               | BW(1/30sec, 30IRE)    | 0.016                                                                                                                                                                    |
| Video Out                     |                       | USB: Micro USB Type B. Preview and installation ONLY. Requires WiFi dongle.                                                                                              |
| Lens                          |                       |                                                                                                                                                                          |
| Focal Length (mm)             |                       | 3.54~6.69                                                                                                                                                                |
| Zoom Ratio                    | Optical               | 1.9x                                                                                                                                                                     |
| Max Aperture Ratio (F number) | Wide                  | 1.67                                                                                                                                                                     |
|                               | Tele                  | 2.64                                                                                                                                                                     |
| Angular Field of View         | Horizontal            | 96°~47°                                                                                                                                                                  |
|                               | Vertical              | 51°~26°                                                                                                                                                                  |
|                               | Diagonal              | 113°~54°                                                                                                                                                                 |
| Min. Object Distance          |                       | 1.5m(4.92ft)                                                                                                                                                             |
| Focus Control                 |                       | Simple focus, Manual                                                                                                                                                     |
| Lens Type                     |                       | Fixed iris                                                                                                                                                               |
| Pan / Tilt / Rotate           |                       |                                                                                                                                                                          |
| Pan / Tilt / Rotate Range     | Pan                   | 0°~355°                                                                                                                                                                  |
|                               | Tilt                  | 0°~78°                                                                                                                                                                   |
|                               | Rotate                | 0°~180°                                                                                                                                                                  |
| Sequence                      |                       | Preset(255ea)                                                                                                                                                            |
| Operational                   |                       |                                                                                                                                                                          |
| Day & Night                   |                       | Auto(ICR)                                                                                                                                                                |

## Operational

|                                          |                |                                                                                                                                                                                             |
|------------------------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Backlight Compensation                   |                | BLC, HLC, WDR, SSDR                                                                                                                                                                         |
| Wide Dynamic Range (dB)                  |                | 120                                                                                                                                                                                         |
| Digital Noise Reduction                  |                | WiseNR, SSNR V                                                                                                                                                                              |
| Defog                                    |                | Support                                                                                                                                                                                     |
| Motion Detection                         | Quantity       | 8ea                                                                                                                                                                                         |
|                                          | Shape          | 8point Polygonal zones                                                                                                                                                                      |
| Privacy Masking                          | Quantity       | 32ea                                                                                                                                                                                        |
|                                          | Shape          | 4point Quadrangle zones                                                                                                                                                                     |
|                                          | Color / Option | Gray, Green, Red, Blue, Black, White, Mosaic                                                                                                                                                |
| Gain Control                             |                | Off, Max gain, Manual                                                                                                                                                                       |
| White Balance                            |                | ATW, NarrowATW, AWC, Manual, Indoor, Outdoor                                                                                                                                                |
| LDC                                      |                | Support                                                                                                                                                                                     |
| Electronic Shutter                       | Mode           | Minimum, Maximum, Anti flicker, Prefer shutter control                                                                                                                                      |
|                                          | Speed Range    | 2~1/12,000sec                                                                                                                                                                               |
| Video Rotation                           |                | Flip, Mirror, Hallway view(90°/270°)                                                                                                                                                        |
| Alarm Interface                          | Others         | Support alarm I/O via optional I/O box                                                                                                                                                      |
| Alarm Triggers                           |                | Analytics, Network disconnect, Alarm input                                                                                                                                                  |
| 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 In                                 |                | Support via optional I/O box                                                                                                                                                                |
| Audio Out                                |                | Support via optional I/O box                                                                                                                                                                |
| Light Type                               |                | IR LED                                                                                                                                                                                      |
| Light Viewable Length                    | IR             | 15m(49ft), 25m(82ft) based on scene                                                                                                                                                         |
| IR Wavelength                            |                | 850nm                                                                                                                                                                                       |

## Analytics

|                  |        |                                                                                                                                                        |
|------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analytics Events | Normal | Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Lotering, Intrusion, Enter/Exit, Appear/Disappear) |
|------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------|

## Network

|                   |  |                                         |
|-------------------|--|-----------------------------------------|
| Ethernet          |  | Metal shielded RJ-45(10/100/1000BASE-T) |
| Video Compression |  | H.265/H.264: Main/Baseline/High, MJPEG  |
| Smart Codec       |  | Manual, WiseStream II                   |
| Bitrate Control   |  | H.265/H.264: CBR or VBR,<br>MJPEG: VBR  |

## Network

|                                   |                    |                                                                                                                                                                                                            |
|-----------------------------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Streaming                         | Unicast            | Up to 20 users                                                                                                                                                                                             |
|                                   | Multicast          | Support                                                                                                                                                                                                    |
|                                   | Multiple Streaming | Up to 10 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) |
| Application Programming Interface | ONVIF              | S, T                                                                                                                                                                                                       |
|                                   | Others             | SUNAPI(HTTP API), Hanwha Vision Open Platform                                                                                                                                                              |
| Direct Cloud Connection           |                    | Optional (needs gateway)                                                                                                                                                                                   |

## Security

|                        |                                                                                                       |  |
|------------------------|-------------------------------------------------------------------------------------------------------|--|
| OS / Firmware Protect  | Encrypted firmware, Secure boot, Signed firmware                                                      |  |
| User authentication    | Digest authentication                                                                                 |  |
| Network authentication | IEEE 802.1X(EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)                                                    |  |
| Secure Communication   | HTTPS, 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), HTPM(Hanwha 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. 512GB x 1slot                                                                                                    |
| Edge Storage(OnCloud) | Micro SD/SDHC/SDXC | Max. 1TB x 1slot *Hanwha Vision branded microSD cards have been certified and recommended for OnCloud edge recording. |

## Environmental & Electrical

|                     |             |                                                                        |
|---------------------|-------------|------------------------------------------------------------------------|
| Operating Condition | Temperature | -40°C~+55°C(-40°F~+131°F)                                              |
|                     | Humidity    | 0~95% RH(non-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)                                               |
| Input Voltage       |             | PoE+(IEEE802.3at, Class4)                                              |
| Power Consumption   | PoE         | Max. 18.3W, typical 13.5W                                              |

## Mechanical

|                         |                                          |
|-------------------------|------------------------------------------|
| Color                   | White                                    |
| Material                | Aluminum                                 |
| RAL Code                | RAL9003                                  |
| Product Dimensions      | 215(W)x135(D)x93.2(H)mm(8.46x5.31x3.67") |
| Product Weight          | 1,330g(2.93lb)                           |
| Compatible Conduit Hole | 12.7mm(1/2")(M20)                        |
| 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, 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 IP66, IEC 60529 IP67, IEC 62262 IK10, NEMA 250 type 4X                                                                                               |

## DORI (EN62676-4 standard)

|                           |      |                  |
|---------------------------|------|------------------|
| Detect (25PPM/ 8PPF)      | Wide | 59.9m(196.62ft)  |
|                           | Tele | 153.1m(502.22ft) |
| Observe (63PPM/ 19PPF)    | Wide | 24.0m(78.65ft)   |
|                           | Tele | 61.2m(200.89ft)  |
| Recognize (125PPM/ 38PPF) | Wide | 12.0m(39.32ft)   |
|                           | Tele | 30.6m(100.44ft)  |
| Identify (250PPM/ 76PPF)  | Wide | 6.0m(19.66ft)    |
|                           | Tele | 15.3m(50.22ft)   |

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6MP x 2CH Multi-directional Camera



CAD

Unit: mm [inch]

