

# PNM-9031RV

15MP H.265 Panoramic Camera

Network



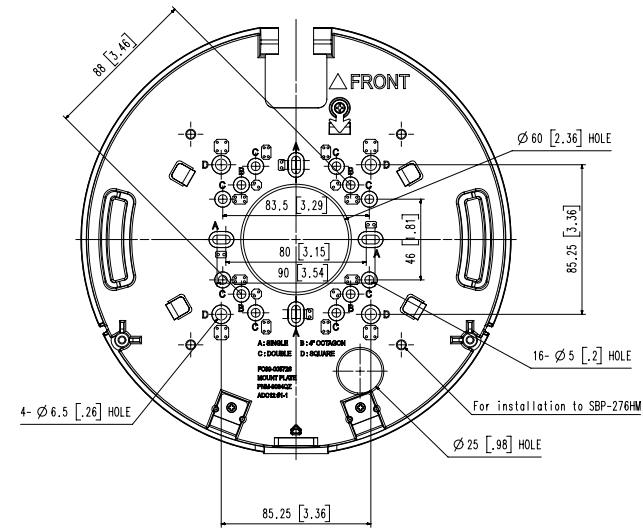
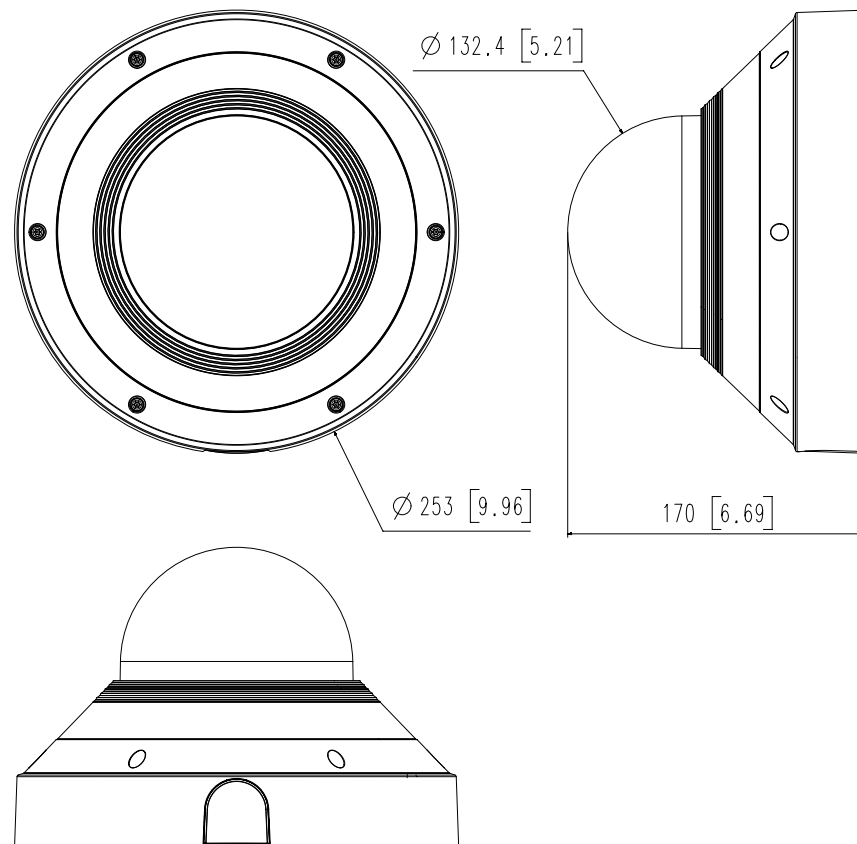
## Key Features

- Max. 15MP 192° panoramic stitching image
- Panoramic channel
- IR viewable length Maximum 20m (65.6ft), WiseIR
- H.265 / H.264 : Max. 20fps
- MJPEG : Max. 15fps
- H.265, H.264, MJPEG codec, WiseStreamII supported
- Motion, Defocus detection, Virtual line, Enter / Exit
- (Dis)Appear, Audio detection, Motion detection, Handover, Heatmap
- microSD/SDHC/SDXC 2 slots, PoE+,
- IP66, IK10, NEMA4X
- TPM 2.0 (FIPS 140-2 level 2)

| Video                     |                                                                                                             |
|---------------------------|-------------------------------------------------------------------------------------------------------------|
| Imaging Device            | 1/2.8" 5MP CMOS (x4)                                                                                        |
| Resolution                | 6720x2240, 5952x1984, 4992x1664, 3840x1280, 3072x1024, 1920x640, 1152x384                                   |
| Max. Framerate            | H.265/H.264: Max. 20fps/20fps(60Hz/50Hz)<br>MJPEG: Max. 15fps(60Hz/50Hz)                                    |
| Min. Illumination         | Color: 0.1Lux(F1.6, 1/30sec)<br>BW: 0.01Lux(F1.6, 1/30sec), 0Lux(IR LED on)                                 |
| Video Out                 | USB : Micro USB Type B, 1280x720 for installation                                                           |
| Lens                      |                                                                                                             |
| Focal Length (Zoom Ratio) | 4.3mm Fixed                                                                                                 |
| Max. Aperture Ratio       | F1.6                                                                                                        |
| Angular Field of View     | 192°(H) x 56.6°(V)                                                                                          |
| Min. Object Distance      | 5m(9.84ft)                                                                                                  |
| Focus Control             | Fixed                                                                                                       |
| Pan / Tilt / Rotate       |                                                                                                             |
| Pan / Tilt / Rotate Range | 0~360 / 0~60 / -                                                                                            |
| Operational               |                                                                                                             |
| Camera Title              | Displayed up to 85 characters                                                                               |
| Day & Night               | Auto(ICR)                                                                                                   |
| Backlight Compensation    | BLC, WDR, SSDR                                                                                              |
| Wide Dynamic Range        | 120dB                                                                                                       |
| Digital Noise Reduction   | SSNR V                                                                                                      |
| Motion Detection          | 8ea, 8point polygonal zones                                                                                 |
| Privacy Masking           | 6ea, rectangular zones<br>- Color: Grey/Green/Red/Blue/Black/White                                          |
| Gain Control              | Low / Middle / High                                                                                         |
| White Balance             | ATW / AWC / Manual / Indoor / Outdoor                                                                       |
| Electronic Shutter Speed  | Minimum / Maximum / Anti flicker (2~1/12,000sec)                                                            |
| Video Rotation            | Flip, Mirror                                                                                                |
| Analytics                 | Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection |
| Business Intelligence     | Heatmap                                                                                                     |
| Alarm I/O                 | Selectable 2 port                                                                                           |
| 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 at event triggers<br>Alarm output |
| 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                    | Wise IR 20m(65.6ft), 4 independent zones with Auto/Manual level adjustment                                                                                                                                                            |
| <b>Network</b>                        |                                                                                                                                                                                                                                       |
| 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<br>G.726(ADPCM) 8KHz, G.711 8KHz<br>G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps<br>AAC-LC: 48Kbps at 16KHz                                                                                                    |
| Smart Codec                           | Manual(5ea area), WiseStream II                                                                                                                                                                                                       |
| Bitrate Control                       | H.264/H.265: CBR or VBR<br>MJPEG: VBR                                                                                                                                                                                                 |
| Streaming                             | Unicast(20 users) / Multicast<br>Multicast Multiple streaming(Up to 4 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, PIM-SM, UPnP, Bonjour, LLDP, SRTP                                      |
| 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)<br>TPM 2.0 with FIPS 140-2 level2 |
| Application Programming Interface     | ONVIF Profile S/G/T<br>SUNAPI(HTTP API)                                                                                                                                                                                               |
| <b>General</b>                        |                                                                                                                                                                                                                                       |
| Webpage Language                      | English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek                                                                                            |
| Edge Storage                          | Micro SD/SDHC/SDXC 2slots 512GB (256GBx2) / SD card encryption support                                                                                                                                                                |
| Memory                                | 8GB RAM, 4GB Flash                                                                                                                                                                                                                    |
| <b>Environmental &amp; Electrical</b> |                                                                                                                                                                                                                                       |
| Operating Temperature / Humidity      | - Normal : -40°C~+55°(-40°F ~ +131°F) /<br>- Intermittent : -40°C~+60°C(-40°F ~ +140°F), 8Hrs<br>- Less than 95% RH(Non-condensing)<br>* Startup should be above -30°C “                                                              |
| Storage Temperature / Humidity        | -50°C~+60°C(-58°F~+140°F) / Less than 90% RH                                                                                                                                                                                          |
| Certification                         | IP66, IK10, NEMA4X                                                                                                                                                                                                                    |
| Input Voltage                         | PoE+ (IEEE802.3at, Class4), 12VDC                                                                                                                                                                                                     |
| Power Consumption                     | PoE+: Max 23.5W, Typical 18.0W<br>12VDC: Max 20.5W, Typical 16.0W                                                                                                                                                                     |
| <b>Mechanical</b>                     |                                                                                                                                                                                                                                       |
| Color / Material                      | White / Aluminum<br>Hard-coated dome bubble                                                                                                                                                                                           |
| RAL Code                              | RAL9003                                                                                                                                                                                                                               |
| Product Dimensions / Weight           | Ø253x170mm / 2.6Kg                                                                                                                                                                                                                    |

- The latest product information / specification can be found at [hanwha-security.eu](http://hanwha-security.eu)
- 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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|----------------|------------|-----------|
| 3              |            |           |
| 2              |            |           |
| 1              | PNM-9031RV | 21.02.10  |
| No.            | MODEL NAME | DATE      |
| Unit:mm[inch]  |            | SCALE:1/1 |
| Hanwha Techwin |            |           |