



Network

Multi-sensor

# PNM-9022V

2MP Panoramic Camera



## Key Features

- Max. 2MP x 4CH
- 209° Mode, 180° Mode support
- 2.8mm fixed focal lens x 4
- H.265/H.264 : Max. 30fps
- MJPEG : Max. 30fps
- extreme WDR (120dB)
- H.265, H.264, MJPEG codec, WiseStreamII supported
- Digital PTZ Support (2CH)
- Tampering, Heatmap
- IP66, IK10, NEMA4X

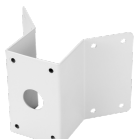
## Compatible Accessories (Optional)



SBP-300LMW



SBP-300WMW1



SBP-300KMW



SBP-300BW



SBP-300PMW



SBP-276HMW



SBP-300WMW



SBP-390WMW2



SBP-300NBW



SBP-300CMW

# PNM-9022V

## 2MP Panoramic Camera



## Specifications

|                           |                                                                                                                                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Video                     |                                                                                                                                                                                                                                  |
| Imaging Device            | 1/2.8" CMOS x 4                                                                                                                                                                                                                  |
| Resolution                | [209° Mode]<br>4608X1800, 4032X1576, 3456X1352, 2864X1124,<br>2304X900, 1728X676, 1152X452, 560X224, 720X576<br><br>[180° Mode]<br>4096X1800, 3584X1576, 3072X1352, 2560X1124,<br>2048X900, 1536X676, 1024X452, 512X224, 720X576 |
| Max. Framerate            | H.265/H.264: Max. 30fps/25fps(60Hz/50Hz)<br>MJPEG: Max. 30fps/25fps(60Hz/50Hz)                                                                                                                                                   |
| Min. Illumination         | Color : 0.1 Lux (F1.6,1/30sec)<br>B/W : 0.01 Lux (F1.6,1/30sec)                                                                                                                                                                  |
| Video Out                 | USB : Micro USB Type B, 1280x720 for installation                                                                                                                                                                                |
| Lens                      |                                                                                                                                                                                                                                  |
| Focal Length (Zoom Ratio) | 2.8mm fixed focal x 4                                                                                                                                                                                                            |
| Max. Aperture Ratio       | F1.6                                                                                                                                                                                                                             |
| Angular Field of View     | H: 209°, V: 83.3°                                                                                                                                                                                                                |
| Min. Object Distance      | 1.5m                                                                                                                                                                                                                             |
| Focus Control             | Fixed                                                                                                                                                                                                                            |
| Pan / Tilt / Rotate       |                                                                                                                                                                                                                                  |
| Pan / Tilt / Rotate Range | 0°~355° / 0°~60° / -                                                                                                                                                                                                             |
| Operational               |                                                                                                                                                                                                                                  |
| Camera Title              | Displayed up to 85 characters                                                                                                                                                                                                    |
| Day & Night               | Auto(ICR)                                                                                                                                                                                                                        |
| Backlight Compensation    | BLC, HLC, WDR, SSDR                                                                                                                                                                                                              |
| Wide Dynamic Range        | extreme WDR(120dB)                                                                                                                                                                                                               |
| Digital Noise Reduction   | SSNR V                                                                                                                                                                                                                           |
| Defog                     | Support                                                                                                                                                                                                                          |
| Motion Detection          | 8ea, 8point polygonal zones                                                                                                                                                                                                      |
| Privacy Masking           | 32ea, polygonal zones<br>- Color: Grey/Green/Red/Blue/Black/White<br>- Mosaic                                                                                                                                                    |
| 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                                                                                                                                                                                                                          |

Design and specifications are subject to change without notice. The latest product information / specification can be found at [HanwhaVision.com](http://HanwhaVision.com)

Hanwha Vision is formerly known as Hanwha Techwin.

|                |                                                                                                                       |
|----------------|-----------------------------------------------------------------------------------------------------------------------|
| 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 recording 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                                                                                     |

#### Network

|                                   |                                                                                                                                                                                                     |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ethernet                          | Metal shielded RJ-45(10/100BASE-T)                                                                                                                                                                  |
| Video Compression                 | H.265/H.264: Main/Baseline/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>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, PIM-SM, UPnP, Bonjour, LLDP, SRTSP   |
| Security                          | HTTPS(SSL) Login Authentication<br>Digest Login Authentication<br>IP Address Filtering<br>User access log<br>802.1X Authentication(EAP-TLS, EAP-LEAP)<br>Device Certificate(Hanwha Techwin Root CA) |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI(HTTP API)<br>Wisenet open platform                                                                                                                                    |

#### General

|                  |                                                                                                                                                      |
|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Webpage Language | English, Korean, Chinese, French, Italian, Spanish, German, Japanese, Russian, Swedish,, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek |
| Edge Storage     | Micro SD/SDHC/SDXC 2slot 1TB(512GB X 2)                                                                                                              |
| Memory           | 4GB RAM, 512MB Flash                                                                                                                                 |

#### Environmental & Electrical

|                                  |                                                                                                                       |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Operating Temperature / Humidity | Normal : -40°C~-55°C(-40°F ~ +131°F) / Intermittent : -40°C~+60°C(-40°F ~ +140°F)<br>Less than 95% RH(Non-condensing) |
| 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 18W, Typical 10.4W<br>12VDC: Max 16W, Typical 9W                                                            |

#### Mechanical

|                                   |                               |
|-----------------------------------|-------------------------------|
| Color / Material                  | White / Aluminum              |
| RAL Code                          | RAL9003                       |
| Product Dimensions / Weight       | Ø253x165mm(9.96"x6.5"), 3200g |
| Compatible Conduit hole / Gangbox | 3/4"                          |
| Hanging Mount (Dome)              | SBP-276HMW                    |