

Performance, Innovation, Reliability



WISENET P

Panoramic and Multi-sensor/
Multi-directional Cameras

WISeNET 5

The power of innovation



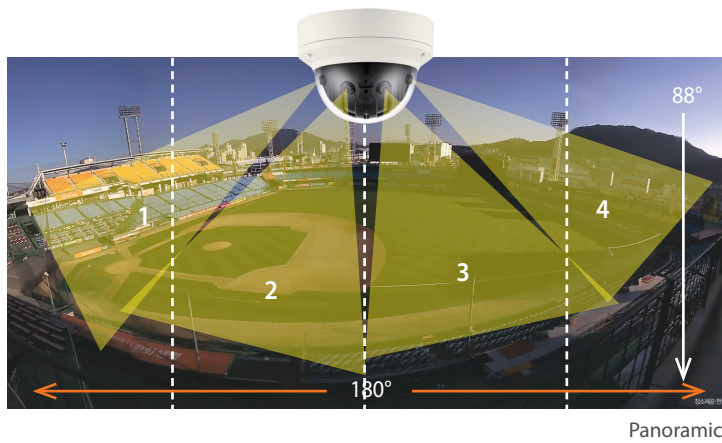
Wisenet 5 is the most powerful chipset ever incorporated into a full camera range. Hanwha's self-developed Wisenet 5 chip uses an all-new architecture that enables faster processing. This means the highest quality video performance with essential features suited to a wide range of video surveillance applications.

Best-in-class 150dB WDR ▶ WiseStream II Compression Technology ▶ Advanced Analytics

Four Cameras in One

Hanwha's Wisenet P series PNM-9020V multi-sensor cameras have four sensors, providing an 180° panoramic wide view with up to 7.3 megapixel high resolution within a single camera instead of installing 4 cameras. They offer a seamless single image by merging 4 images from each sensor.

Using PNM-9080VQ and PNM-9081VQ multi-sensor/multi-directional cameras, you can monitor multiple directions simultaneously without blind spots making them ideal for wide areas such as shopping mall entrances, lobbies and airports.



Multi-sensor Camera Lineup

	8MP	20MP
Panoramic	 PNM-9020V	
Multi-directional	 PNM-9080VQ	 PNM-9081VQ

Multiple View Modes

The PNM-9020V multi-sensor camera offers panoramic (16:9), half panoramic (4:3) and 3PTZ modes with a panoramic view.

The four sensors in the multi-sensor/multi-directional camera move independently of one another. In addition, one of the sensors can easily be removed and attached in the center of the camera, allowing for flexible set-up.

PNM-9020V

Panorama



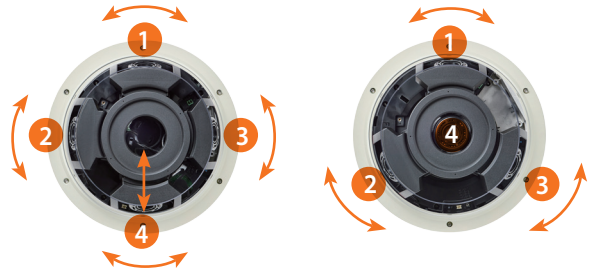
Half Panorama (4:3)



Panorama + 3PTZ



PNM-9080VQ/9081VQ



Natural and Clear Images

A fisheye camera is optimal for focusing on the center of an image. However, the multi-directional camera, with 4 sensors, shows clearer at the edge of each image.



Fisheye camera



Low pixel density

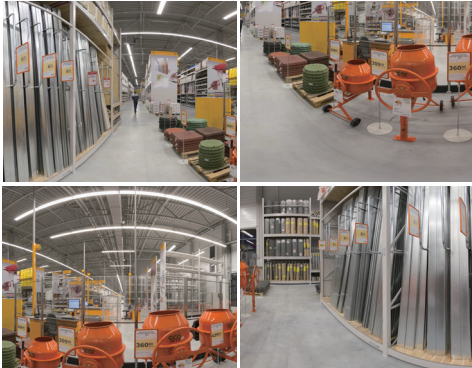


PNM-9080VQ/9081VQ

Uniform pixel density across all images

Optimized for Indoor and Outdoor Environments

Wisenet P series multi-sensor/multi-directional cameras provide a wide area of coverage in extreme detail. Features include 60fps (per sensor), 150dB wide dynamic range and low light performance (0.0015 Lux B/W, 0.015 Lux color).



Warehouses



Mall entrances



Large outdoor areas

Improve Bandwidth by up to 99% Using WiseStream II

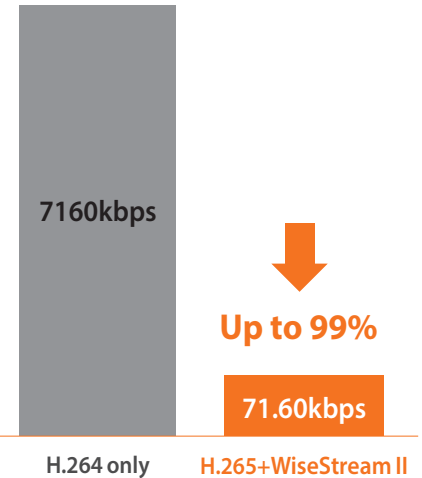
The combination of H.265 compression and WiseStream II, a complementary compression technology that dynamically controls encoding, balancing quality and compression according to movement in the image, result in data reduction of up to 99%. This translates into significant savings on bandwidth, storage and cost.



WiseStream II OFF : 7160kbps
WiseStream II ON : 71.60kbps



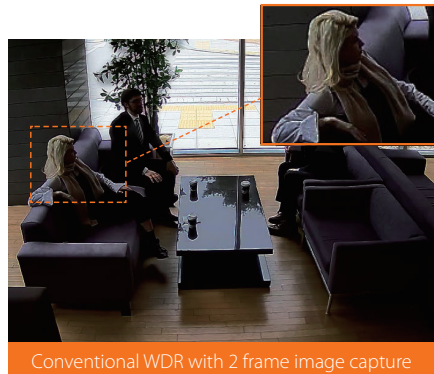
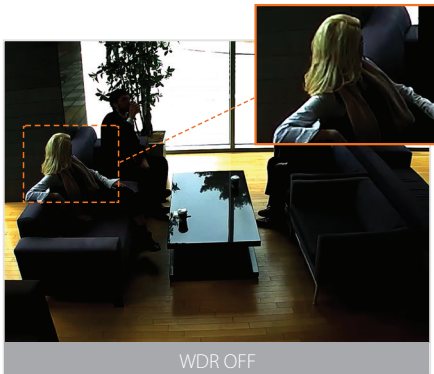
WiseStream II OFF : 7260kbps
WiseStream II ON : 3630kbps



Superb Features with Hanwha's Core Technology

Best-in-Class 150dB Wide Dynamic Range (WDR)

Conventional WDR captures images by taking 2 frames taken at different exposures, whereas the multi-sensor/multi-directional cameras utilize 4 frame capture at different exposure levels to create a combined image. With the development of cutting-edge WDR technology, these cameras address a limitation found in conventional WDR cameras while producing clear and vivid images. (PNM-9080VQ)



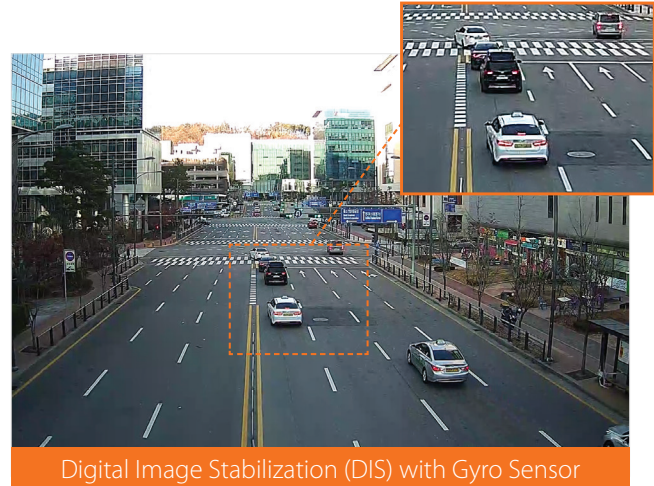
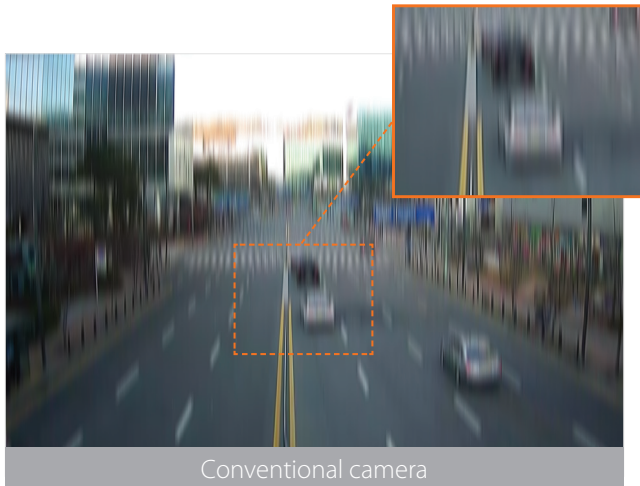
Monitor Color Images Even in Low-Light Environments

With the new, powerful Wisenet 5 chipset and processing technology, combined with Hanwha Techwin's outstanding lens technology, the multi-sensor/multi-directional cameras achieve optimal performance in low-light conditions by capturing and producing crystal-clear images including true-color images without IR LEDs, regardless of the environment or time of day. (PNM-9080VQ and PNM-9081VQ)



Improved Digital Image Stabilization (DIS) with Gyro Sensor

Advances in Hanwha's image stabilization technology allow for the reduction of motion blur caused by wind or vibration. A gyroscopic sensor plus DIS technology is specifically designed and engineered into multi-sensor/multi-directional cameras resulting in sharp, stable images. (PNM-9080VQ and PNM-9081VQ)



Highlight Compensation (HLC)

Cameras detect areas of an image that are overexposed and reduces the brightness of these areas, improving the overall quality and usability of the image.



WISENET

Hanwha Techwin America

500 Frank W. Burr Blvd. Suite 43 Teaneck, NJ 07666

Toll Free : +1.877.213.1222

www.hanwhasecurity.com



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