

4 x 2MP(8MP) Outdoor Multi-Sensor Network Camera

The WV-S8531N captures the highest quality images in even very challenging and dynamic environments. In particular, the camera can capture clear vehicle image in color even at night intersections of low light intensity. And the four repositionable lenses minimize blind spots and flexibly correspond to intersections of various shapes and monitoring areas of cities. Intelligent Auto (iA) monitors scene dynamics and motion to adjust key camera settings automatically in real-time reducing distortion such as motion blur on moving objects. By adopting H.265 Smart Coding technology, bandwidth efficiency is intelligently increased for longer recording and less storage. Cameras out-of-the-box, use an encryption module standardized by FIPS Publication 140-2 for secure video streaming.

Extreme image quality for evidence capturing under challenging conditions

- Four repositionable lenses with easy adjustment include a wide range tilt angle mechanism minimizes blind spots
- Sharp and clear images of fast moving vehicles with Intelligent Auto and ClearSight Coating
- Outstanding low light performance in true color with low noise for night time applications
- Super Dynamic 120dB for backlit situations and shadows on night streets
- Environmental durability : IP66, IK10 and Dehumidification device

Extreme bandwidth compression with new H.265 Smart Coding

- Reduced the amount of transferred data and less storage space compared to any H.264 based compression techniques
- New self-learning ROI* encoding (Auto VIQS) dynamically detect motion areas to keep vehicles and human in good picture quality while lowering your bandwidth *Region of Interest

Extreme Data Security

- Full encryption SD card edge recording to keep your data safe
- FIPS140-2 CAVP compliant *Using encryption module standardized by FIPS publication 140-2
- Full end-to-end system encryption with supported VMS and devices to protect from IP snooping/spoofing and detect data alteration

Easy installation

- Continuous view assistance: After determining the monitor angle, set the lens to the specified position and the cameras will automatically zoom and focus to reduce the overlap of images from each camera.
- Installation time can be reduced by confirming live image and adjusting viewing angle with smartphone or tablet device via Wi-Fi connection.
- Allows you to connect the network cable to the camera body simply by opening a part of the package, which saves you time and workspace, especially when handling multiple cameras.

Key Features

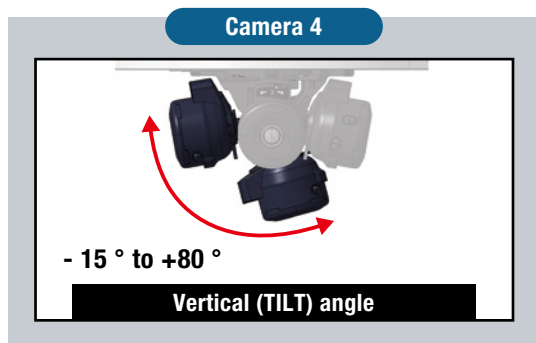
- 4 x 2MP(8MP) 1920x1080 up to 30fps
- iA (intelligent Auto)
- Super Dynamic 120dB
- Color night vision (0.003 to 0.05 lx)
- H.265 Smart Coding
- ClearSight Coating
- Continuous view assistance
- Wide range tilt angle adjustment mechanism
- ONVIF® Profile G / S *ONVIF is a trademark of ONVIF, Inc.

Industry examples

- Public safety (City / Highway toll / Parking gate)
- Transportation (Airport / Train / Subway)



Wide range tilt angle adjustment mechanism



*The above is the adjustable range of a single camera. The adjustable range of each camera varies according to the positional relationship with other cameras.

Continuous view assistance

Before adjustment



After adjustment

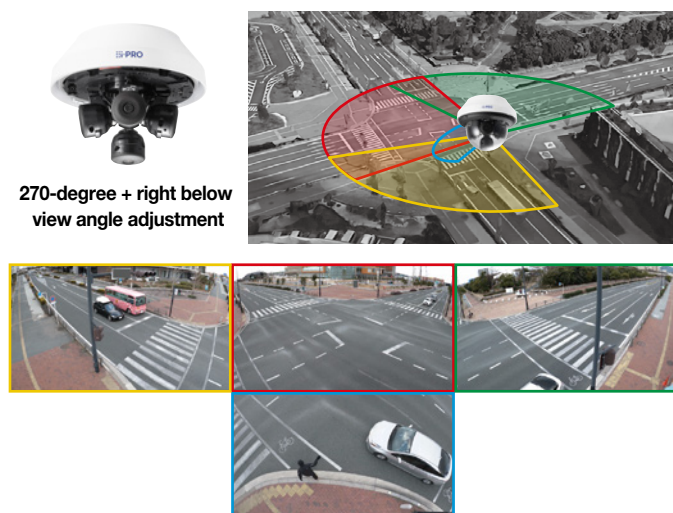


After determining the monitor angle, set the lens to the specified position and the cameras will automatically zoom and focus to reduce the overlap of images from each camera.

Four repositionable lenses enables to monitoring at minimize blind spots

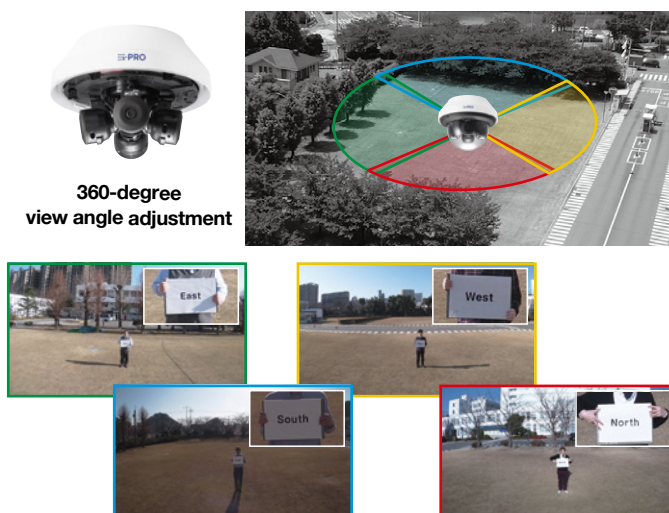
270-degree view (Full intersection view)

- One multi sensor camera at intersection corner, It enables monitoring with minimized blind spots
- Enables to monitoring even if bottom view angle



360-degree view

- One multi-sensor camera enables monitor the park by minimize blind spots



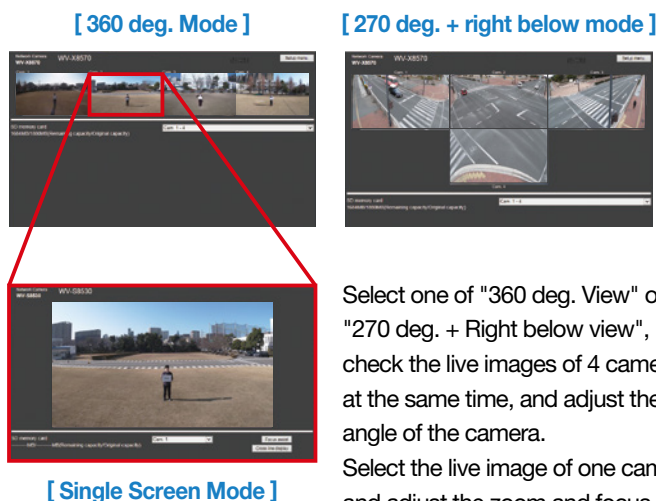
Usability - Easy setting

- Installation time can be reduced by confirming live image and adjusting viewing angle with smartphone or tablet device via Wi-Fi connection.



Insert USB Wi-Fi device* to the USB terminal on multi-sensor camera

*Be sure to use a Wi-Fi USB adapter that is checked its operability by i-PRO.



Select one of "360 deg. View" or "270 deg. + Right below view", check the live images of 4 cameras at the same time, and adjust the angle of the camera. Select the live image of one camera and adjust the zoom and focus.

Specifications

Camera	Image Sensor	1/2.8 type CMOS image sensor
	Minimum Illumination	Color : 0.05 lx, BW : 0.03 lx (50IRE, F2.0, Maximum shutter : Off (1/30s), AGC : 11) Color : 0.003 lx, BW : 0.002 lx (50IRE, F2.0, Maximum shutter : max. 16/30s, AGC : 11)* ¹
	Intelligent Auto	On / Off
	Maximum shutter	30 fps mode: Max.1/10000s to Max.16/30s 25 fps mode: Max.1/10000s to Max.16/25s
	Super Dynamic	On / Off, The level can be set in the range of 0 to 31.
	Dynamic Range	Max.120 dB typ. (Super Dynamic : On, level : 31)
	Image Settings	Gain (AGC), White balance
	Image Compensation	Adaptive black stretch, Back light compensation (BLC), High light compensation (HLC), Fog compensation, Digital noise reduction
	Color/BW (ICR)	Off / On / Auto1 (Normal) / Auto2 (IR Light) / Auto3 (SCC)
	Video Motion Detection (VMD)	On / Off, 4 areas available
	Privacy Zone	On / Off, up to 8 zones available
	Upside-down	On / Off
	Camera Title (OSD)	On / Off, Up to 20 characters (alphanumeric characters, marks)
	Adjusting angle	Camera 1, 2, 3 : Horizontal (PAN) angle : 360 ° Vertical (TILT) angle : +30 ° to + 80 ° Azimuth (YAW) angle : ±50 ° Camera 4 : Horizontal (PAN) angle : 360 ° Vertical (TILT) angle : -15 ° to + 80 ° Azimuth (YAW) angle : ±50 ° *The above is the adjustable range of a single camera. The adjustable range of each camera varies according to the positional relationship with other cameras.
	Lens	Zoom Ratio
Digital (electronic) zoom		Choose from 3 levels of x1, x2, x4
Focal length		2.9 mm – 7.3 mm (1/8 inches - 7/32 inches)
Maximum Aperture Ratio		1 : 2.0 (WIDE) – 1 : 3.0 (TELE)
Focus range		1.5 m (4.92 feet) – ∞
Angular Field of view with one lens		[16 : 9] Horizontal : 45 ° (TELE) – 104 ° (WIDE) Vertical : 25 ° (TELE) – 58 ° (WIDE)
DORI	Detect (25ppm / 8ppf)	Wide: 30 m / 98.4 ft, Tele: 92.7 m / 304.2 ft
	Observe (62.5ppm / 19ppf)	Wide: 12 m / 39.4 ft, Tele: 37.1 m / 121.7 ft
	Recognize (125ppm / 38ppf)	Wide: 6 m / 19.7 ft, Tele: 18.5 m / 60.8 ft
	Identify (250ppm / 76ppf)	Wide: 3 m / 9.8 ft, Tele: 9.3 m / 30.4 ft
Browser GUI	Camera Control	Brightness
GUI	GUI / Setup Menu Language	English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese
	Network IF	10Base-T / 100Base-TX / 1000Base-T, RJ45 connector
Network	Resolution with one lens	[16 : 9 mode] *Cannot be changed. 1920 x 1080 / 1280 x 720 / 640 x 360 / 320 x 180
	H.265 / Transmission Mode	Constant bit rate / VBR / Frame rate / Best effort
	H.264*2 / Transmission Type	Unicast port(AUTO) / Unicast port(MANUAL) / Multicast
	JPEG / Image Quality	10 steps
	Smart Coding	GOP (Group of pictures) control : On (Frame rate control)* / On (Advanced)* / On (Mid) / On (Low) / Off *On (Frame rate control) and On (Advanced) are only available with H.265. Auto VIQS : On / Off

Network	Supported Protocol	IPv6 : TCP/IP, UDP/IP, HTTP, HTTPS, SSL / TLS, SMTP, DNS, NTP, SNMP, DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ, MQTT ³ , LLTP ³ IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, SSL / TLS, RTSP, RTP, RTP/RTCP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ, MQTT ³ , LLTP ³
	Maximum concurrent access number	Up to 24 users (Depends on network conditions)
	SDXC/SDHC/SD Memory Card	H.265 / H.264 recording : Manual REC / Alarm REC (Pre/Post) / Schedule REC Compatible SDXC/SDHC/SD card : i-PRO 32 GB*, 64 GB**, 128 GB**, 256 GB**, 512GB** model *SDHC card, ** SDXC card (except miniSD card and microSD card)
	Mobile Terminal Compatibility	iPad / iPhone, Android™ terminals
Alarm	ONVIF® Profile	G / S
	Alarm Source	VMD alarm, Command alarm
	Alarm Actions	SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notification, Indication on browser, TCP alarm notification output
	General	Safety
EMC		FCC (Part15 ClassA), ICES003 ClassA, EN55032 ClassB, EN55024
Power Source and Power Consumption		PoE+ (IEEE802.3at compliant): DC 54V 390 mA, Approx. 22 W(Class4 device)
Ambient Operating Temperature		-40 °C to +60 °C (-40 °F to +140 °F)
Temperature		{Power On range : -20 °C to +60 °C (-4 °F to +140 °F)}
Ambient Operating Humidity		10 to 100 % (no condensation)
Dehumidification Device		Rosahl element
Water and Dust Resistance		IP66 (IEC60529), Type 4X (UL50E), NEMA 4X compliant
Shock Resistance		IK10 (IEC62262)
Wind Resistance		Up to 40 m/s (approx. 89 mph)
Dimensions	When using the attachment plate only : ø230 mm x 196 mm (H) (ø9-1/16 inches x 7-23/32 inches (H)), Dome radius 80 mm (3-5/32 inches)	
	Mass (approx.)	When using the attachment plate only : Approx. 2.7 kg (5.95 lbs)
Finish	Main body : Aluminum die cast, i-PRO white, Outer fixing screws : Stainless steel (Corrosion-resistant treatment) Dome cover : Polycarbonate resin (with ClearSight coating), Clear	

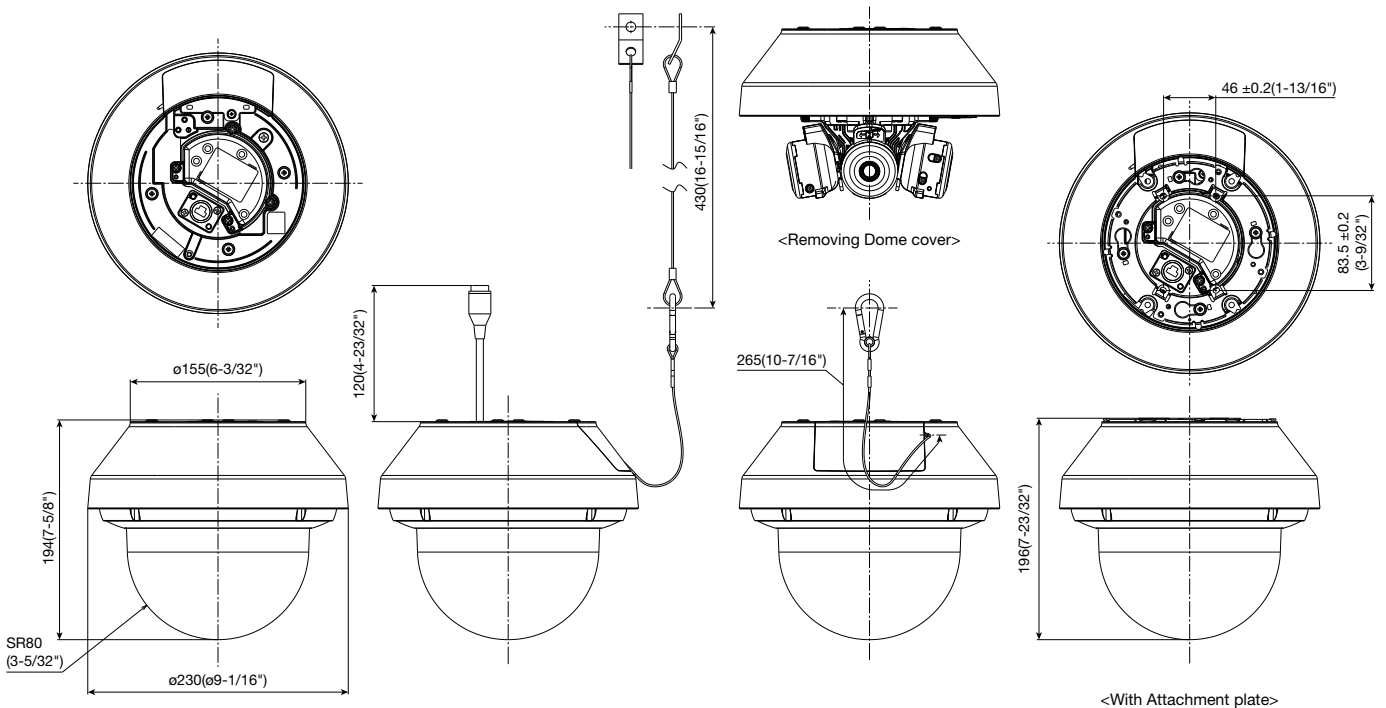
*1 Converted value

*2 H.265/H.264 can be selected for each stream.

*3 It may be necessary to upgrade the firmware to use these protocols.



Appearance

Unit : mm (inches)



Optional Accessories

Mount Bracket / Other

	WALL	POLE	CORNER	HANGING	CEILING		OTHER
	1	1	1	1	1	2	1
combination	Wall Mount Bracket WV-QWL501-W (i-PRO white) 	Pole Mount Bracket WV-QPL500-W (i-PRO white) 	Corner Mount Bracket WV-QCN500-W (i-PRO white) 	Ceiling Mount Bracket WV-QCL501-W (i-PRO white) 	Base Bracket WV-QJB501-W (i-PRO white) 	Ceiling Mount Bracket WV-Q105A  *For indoor installation only.	Attachment pipe (For 3rd party bracket) WV-QAT500-W (i-PRO white) 
	Mount Bracket WV-QSR502A-W (i-PRO white) 			Mount Bracket WV-QSR502A-W (i-PRO white) 			

Important

- Safety Precautions : Carefully read the Basic Information, Installation Guide and Operating Instructions before using this product.
- i-PRO Co., Ltd. cannot be held responsible for the performance of the network and/or other manufacturers' products used on the network.

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