

12MP Sensor Indoor 360-degree Fisheye Network Camera

The WV-X4172 captures the highest quality images in even very challenging and dynamic environments. In particular, the image of the person's face or object at the edge of the fisheye is clear with less distortion. 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. 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

- Clear and less distorted image of the person's face and objects at the edge of the fisheye
- Instant response to sudden light changes like tunnel entry and exit
- Auto Shutter speed control for fast moving objects

Extreme bandwidth compression with new H.265 Smart Coding

- Longer recording and less storage space compared to any H.264 based compression techniques
- New self-learning ROI* encoding (Auto VIQS) dynamically detects motion areas to keep vehicles and humans in good picture quality while lowering your bandwidth *Region of Interest

Extreme Data Security

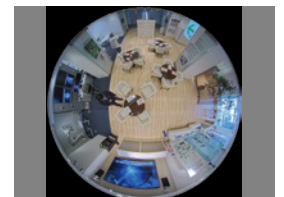
- Full encryption SD card edge recording to keep your data safe
- FIPS140-2 CAVP compliant *Using encryption module standardized by FIPS publication 140-2
- Full end-to-end system encryption with supported VMS and devices to protect from IP snooping/spoofing and detect data alteration

Key Features

- 12MP Sensor
 - 2992x2992 pixel fisheye image up to 30fps
 - iA (intelligent Auto)
 - H.265 Smart Coding
 - i-VMD License Bundled
 - ONVIF® Profile G / S / T
- *ONVIF is a trademark of ONVIF, Inc.

Industry examples

- Transportation (Airport / Subway station)
- Logistics / Factory
- Education / Hospital
- Retail / Bank
- Building



2992 x 2992
4000 x 3000

Specifications

Camera	Image Sensor	Approx. 1/2 type 12MP CMOS image sensor	
	Minimum Illumination	Color : 0.3 lx, BW : 0.2 lx (F1.9, Maximum shutter : Off (1/30 s), AGC : 11) Color : 0.02 lx, BW : 0.01 lx (F1.9, Maximum shutter : max. 16/30s, AGC : 11) **	
	Intelligent Auto	On / Off	
	Maximum shutter	Max.16/30s to Max. 1/10000s	
	Wide Dynamic Range ²	On / Off, The level can be set in the range of 0 to 31.	
	Dynamic Range	Max.84 dB (Wide Dynamic Range : On, level : 31)	
	Image Settings	Gain (AGC), White balance	
	Image Compensation	Adaptive black stretch, Back light compensation (BLC), Fog compensation, High light compensation (HLC), Digital noise reduction	
	Day / Night (Electrical)	Off / Auto	
	Video Motion Detection (VMD)	On / Off, 4 areas available	
	Intelligent VMD (i-VMD) ³	Type 8 *Bundled License	
	Privacy Zone	On / Off, Up to 8 zones available	
	Camera Title (OSD)	On / Off, Up to 20 characters (alphanumeric characters, marks)	
	Fixing angle adjustment	-5°, 0°, +5°	
Lens	Zoom Ratio	1x	
	Digital (electronic) zoom	Choose from 3 levels of x1, x2, x4	
	Focal length	1.4 mm (1/16 inches)	
	Maximum Aperture Ratio	1 : 1.9	
	Focus range	0.5 m (19-11/16 inches) - ∞	
	Angular Field of view	Horizontal : 183° Vertical : 183°	
DORI	Distance to the object in the center of the image	Detect (25 ppm / 8 ppf) : 29.9 m / 98.2 ft	
		Observe (62.5 ppm / 19 ppf) : 12.0 m / 39.3 ft	
		Recognize (125 ppm / 38 ppf) : 6.0 m / 19.6 ft	
	Coverage radius when mounted at a height of 3 m (10 ft)	Detect (25 ppm / 8 ppf) : 56.1 m / 184.2 ft	
		Observe (62.5 ppm / 19 ppf) : 20.6 m / 67.6 ft	
		Recognize (125 ppm / 38 ppf) : 8.4 m / 27.6 ft	
Identify (250 ppm / 76 ppf) : 0.3 m / 0.9 ft			
Browser GUI	Camera Control	Brightness	
	GUI / Setup Menu Language	English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese	
Network	Network IF	10Base-T / 100Base-TX, RJ45 connector	
	Resolution	<Ceiling>	*Fisheye mode (max. 30 fps/25 fps) 2992x2992 / 2192x2192 / 1280x1280 / 640x640 / 320x320 *Quad PTZ mode (max. 15 fps/12.5 fps), Single PTZ mode (max. 15 fps/12.5 fps) 2560x1920 ⁴ / 2048x1536 / 1600x1200 / 1280x960 / 800x600 / VGA / QVGA
		<Wall>	*Double Panorama mode (max. 15 fps/12.5 fps) 2560x1440 / 1920x1080 / 1280x720 / 640x360 / 320x180 *Fisheye + Double Panorama mode (max. 15 fps/12.5 fps) (Fisheye) 2992x2992 / 2192x2192 / 1280x1280 / 640x640 / 320x320 (Double Panorama) 1280x720 / 640x360 / 320x180 *Fisheye + Quad PTZ mode (max. 15 fps/12.5 fps) (Fisheye) 2992x2992 / 2192x2192 / 1280x1280 / 640x640 / 320x320 (Quad PTZ) 1280x960 / 800x600 / VGA / QVGA *Quad streams mode (Single PTZ (Quad streams)) 1280x960 / 800x600 / VGA / QVGA (max. 15 fps/12.5 fps) (Quad PTZ) 2560x1920 / 2048x1536 / 1600x1200 / 1280x960 / 800x600 / VGA / QVGA (max. 5 fps)
	<Wall>	*Panorama mode (max. 15 fps/12.5 fps) 2560x1440 / 1920x1080 / 1280x720 / 640x360 / 320x180 *Fisheye + Panorama mode (max. 15 fps/12.5 fps) (Fisheye) 2992x2992 / 2192x2192 / 1280x1280 / 640x640 / 320x320 (Panorama) 1280x720 / 640x360 / 320x180	

Network	H.265/ H.264 ⁵	Transmission Mode	Constant bit rate / VBR / Frame rate / Best effort
	JPEG	Transmission Type	Unicast port (AUTO) / Unicast port (MANUAL) / Multicast
Smart Coding	Image Quality		10 steps
			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 VIGS : On / Off
Supported Protocol			IPv6 : TCP/IP, UDP/IP, HTTP, HTTPS, SMTP, DNS, NTP, SNMP, DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ, SSL/TLS ⁶ , SRTP ⁶ , SFTP ⁶ , MQTT ⁶ , LLDP ⁶ IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTMP, ICMP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ, SSL/TLS ⁶ , SRTP ⁶ , SFTP ⁶ , MQTT ⁶ , LLDP ⁶
	Maximum concurrent access number		Up to 14 users (Depends on network conditions)
Memory Card	SDXC/SDHC/SD		H.265 / H.264 recording : Manual REC / Alarm REC (Pre/Post) / Schedule REC JPEG recording : Manual REC / Alarm REC (Pre/Post) Compatible SDXC/SDHC/SD card : Panasonic 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64 GB**, 128 GB**, 256 GB**model *SDHC card, ** SDXC card (except miniSD card and microSD card)
Mobile Terminal Compatibility	iPad, iPhone, Android™ terminals		
	ONVIF ⁶ Profile		G / S / T
Alarm	Alarm Source		VMD, Command alarm
	Alarm Actions		SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notification, Indication on browser, TCP alarm notification output
General	Safety		UL (UL60950-1), c-UL (CSA C22.2 No.60950-1), CE, IEC60950-1
	EMC		FCC (Part15 ClassA), ICES003 ClassA, EN55032 ClassB, EN55024, EN55035
	Power Source and Power Consumption		PoE (IEEE802.3af compliant) Device : DC 48 V 150 mA/Approx. 7.2 W (Class 0 device)
	Ambient Operating Temperature		0 °C to +40 °C (32 °F to 104 °F)
	Ambient Operating Humidity		10% to 90 % (no condensation)
	Dimensions		ø150 mm × 49.5 mm (H) (ø5-29/32 inches × 1-15/16 inches (H))
	Mass (approx.)		Approx. 400 g (0.88 lbs)
	Finish		Main body : ABS resin, i-PRO white

*1 Converted value
 *2 When "On (level 30 or 31)" is selected for "Wide Dynamic Range(WDR)", the frame rate is restricted to a maximum of 15fps (30fps mode) or 12.5fps (25fps mode)..
 *3 Auto VIGS, i-VMD, can not be used at the same time.
 *4 When "Single PTZ" mode is used in wall installations, the 2560x1920 resolution cannot be used.
 *5 Transmission for 2 streams can be individually set.
 *6 It may be necessary to upgrade the firmware to use these protocols






Bundled License

Plug-in Software for i-VMD

i-VMD is possible to detect objects in the specified area by advanced video analysis technology.
 i-VMD : People Counting, Heat-map, MOR (Moving Object Remover), Intruder Detection, Loitering Detection, Cross line Detection, Object Detection, Scene change Detection

Optional Accessories

Mount Bracket

Ceiling Mount Bracket WV-Q105A 	Wall Mount Bracket WV-QWL500-W (i-PRO white) 	Adapter Box WV-QJB500-W (i-PRO white)  (This bracket requires WV-QWL500-W.)
Pole Mount Bracket WV-QPL500-W (i-PRO white)  (This bracket requires WV-QWL500-W.)	Corner Mount Bracket WV-QCN500-W (i-PRO white)  (This bracket requires WV-QWL500-W.)	

*Brackets are available in four colors, Fine silver, Light gray, Gray and i-PRO white. It is possible to use them in different color combinations.

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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* Masses and dimensions are approximate. • Specifications are subject to change without notice.

Appearance

