::i·PRO

WV-S4151

5MP Sensor Indoor 360-degree Fisheye Network Camera

The WV-S4151 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
- Super Dynamic 120dB for backlit situations and shadows on night streets

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

Complete with powerful analytics built-in
- Heat map : Visualization of people's traffic pattern and staying times
- People Counting : Statistics data on the number of people entering and leaving a specific zone
- MOR (Moving Object Remover) : Monitoring of only the surrounding environment by removing people and other moving objects from video

Key Features

- 2192x2192 pixel fisheye images up to 30fps
- iA (intelligent Auto)
- Super Dynamic 120dB
- H.265 Smart Coding
- i-VMD License Bundled
- ONVIF® Profile G / S / T
*ONVIF is a trademark of ONVIF, Inc.

Industry examples

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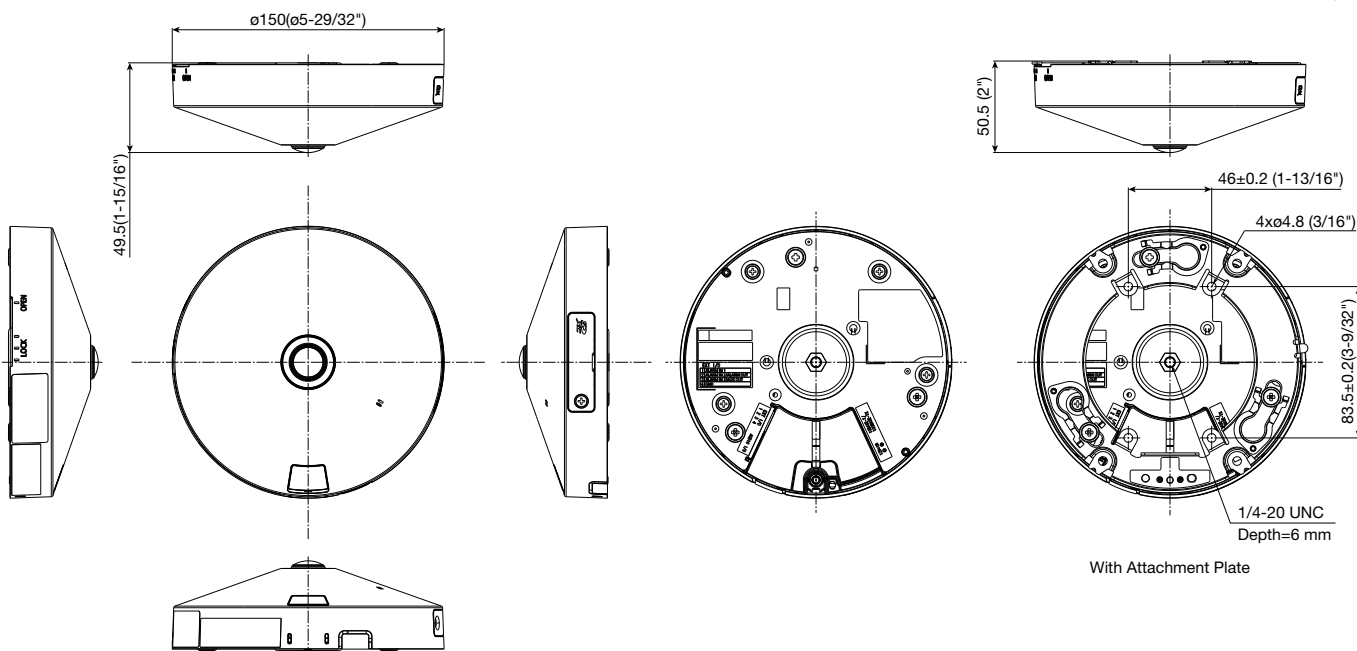- Transportation (Airport / Subway station)
- Logistics

Specifications

Camera	Image Sensor	Approx. 1/3 type 5MP MOS image sensor
	Minimum Illumination	Color : 0.15 lx, BW : 0.1 lx
		(F2.4, Maximum shutter : Off (1/30 s), AGC : 11)
		Color : 0.01 lx, BW : 0.006 lx
		(F2.4, Maximum shutter : max. 16/30s, AGC : 11) *1
	Intelligent Auto	On / Off
	Maximum shutter	Max.16/30s to Max. 1/10000s
	Super Dynamic*2	On / Off, The level can be set in the range of 0 to 31.
	Dynamic Range	Max.120 dB (Super Dynamic : 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	0.84 mm {1/32 inches}
	Maximum Aperture Ratio	1 : 2.4
	Focus range	0.3 m {11-13/16 inches} - ∞
	Angular Field of view	Horizontal : 186° Vertical : 186°
DORI	Distance to the object	Detect (25 ppm / 8 ppf) : 20.7 m / 68.0 ft
	in the center of the image	Observe (62.5 ppm / 19 ppf) : 8.3 m / 27.2 ft
		Recognize (125 ppm / 38 ppf) : 4.1 m / 13.6 ft
		Identify (250 ppm / 76 ppf) : 2.1 m / 6.8 ft
	Coverage radius	Detect (25 ppm / 8 ppf) : 38.0 m /124.6 ft
	when mounted at a height	Observe (62.5 ppm / 19 ppf) : 13.2 m / 43.3 ft
	of 3 m (10 ft)	Recognize (125 ppm / 38 ppf) : 4.3 m / 14.1 ft
		Identify (250 ppm / 76 ppf) : —
Browser	Camera Control	Brightness, AUX On / off
GUI	Audio	Mic (Line) Input : On / Off Volume adjustment : Low / Middle / High
		Audio Output : On / Off Volume adjustment : Low / Middle / High
	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)
	<Wall>	2192×2192 / 1280×1280 / 640×640 / 320×320
		•Quad PTZ mode (max. 30 fps/25 fps), Single PTZ mode (max. 30 fps/25 fps)
		1600×1200 / 1280×960 / 800×600 / VGA / QVGA
	<Ceiling>	•Double Panorama mode (max. 30 fps/25 fps)
		1920×1080 / 1280×720 / 640×360 / 320×180
		•Fisheye + Double Panorama mode (max. 30 fps/25 fps)
		(Fisheye) 2192×2192 / 1280×1280 / 640×640 / 320×320
		(Double Panorama) 1280×720 / 640×360 / 320×180
		•Fisheye + Quad PTZ mode (max. 30 fps/25 fps)
		(Fisheye) 2192×2192 / 1280×1280 / 640×640 / 320×320
		(Quad PTZ) 1280×960 / 800×600 / VGA / QVGA
		•Quad streams mode
		(Single PTZ (Quad streams)) 1280×960 / 800×600 / VGA / QVGA (max. 30 fps/25 fps)
		(Quad PTZ) 1600×1200 / 1280×960 / 800×600 / VGA / QVGA (max. 5 fps)
	<Wall>	•Panorama mode (max. 30 fps/25 fps)
		1920×1080 / 1280×720 / 640×360 / 320×180
		•Fisheye + Panorama mode (max. 30 fps/25 fps)
		(Fisheye) 2192×2192 / 1280×1280 / 640×640 / 320×320
		(Panorama) 1280×720 / 640×360 / 320×180

Network	H.265/	Transmission Mode	Constant bit rate / VBR / Frame rate / Best effort
	H.264*4	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
	Audio Compression		G.726 (ADPCM) : 16 kbps / 32 kbps,
			G.711 : 64 kbps,
			AAC-LC*5 : 64 kbps / 96 kbps / 128 kbps
	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, RTP/RTCP,
			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)
	SDXC/SDHC/SD		H.265 / H.264 recording :
	Memory Card		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® Profile		G / S / T
Alarm	Alarm Source		3 terminals input, VMD, Command alarm
	Alarm Actions		SDXC/SDHC/SD memory recording, E-mail notification,
			HTTP alarm notification Indication on browser,
			TCP alarm notification output
Input/	Audio Input		ø3.5 mm stereo mini jack, Recommended applicable microphone : Plug-in power type
Output			(Sensitivity of microphone : –48 dB ±3 dB (0 dB=1 V / Pa,1 kHz))
			Input impedance : Approx. 2 kΩ (unbalanced) Supply voltage : 2.5 V ±0.5 V
	Built-in microphone		Nondirectional electret condenser microphone
	Audio Output*7		ø3.5 mm stereo mini jack (monaural output)
			Output impedance : Approx. 600 Ω (unbalanced) Output level : –20 dBV
	External I/O Terminals		ALARM IN 1 (Auto time adjustment) (x1),
			ALARM IN 2 (ALARM OUT) (x1), ALARM IN 3 (AUX OUT) (x1)
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		DC power supply : DC12 V 400 mA, Approx. 4.8 W
	Power Consumption		PoE (IEEE802.3af compliant) Device :
			DC48 V 110 mA, Approx. 5.3 W (Class 2 device)
	Ambient Operating Temperature		–10 °C to +50 °C (14 °F to 122 °F)
	Ambient Operating Humidity		10% to 90 % (no condensation)
	Dimensions		ø150 mm × 50.5 mm (H) {ø5-29/32 inches × 2 inches (H)}
	Mass (approx.)		Approx. 390 g {0.86 lbs}
	Finish		Main body : ABS resin, i-PRO white

*1 Converted value
*2 When "On (level 30 or 31)" is selected for "Super Dynamic", the frame rate is restricted to a maximum of
   15fps (30fps mode) or 12.5fps (25fps mode).
*3 Auto VIQS, i-VMD, can not be used at the same time.
*4 Transmission for 2 streams can be individually set.
*5 When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).
*6 It may be necessary to upgrade the firmware to use these protocols
*7 The audio output can be switched to the monitor output.
   Refer to the Operating Instructions on the our support web site for descriptions of how to switch the output.
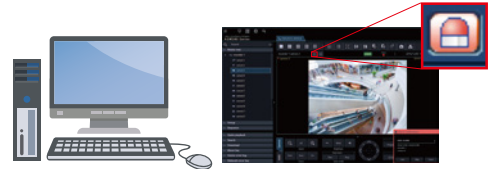
Appearance

Unit : mm (inches)

ø150(ø5-29/32")

49.5(1-15/16")

50.5 (2")

46±0.2 (1-13/16")

4×ø4.8 (3/16")

83.5±0.2(3-9/32")

1/4-20 UNC
Depth=6 mm

With Attachment Plate

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

Notification sent to the monitoring screen

Optional Accessories

Mount Bracket / Other

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

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

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The Power of Truth

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