WV-S85403A-V2

3 x 4MP AI Outdoor Multi-directional Camera (2.5x zoom)

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- 3 x 4MP(12MP) 2688x1520 up to 30fps
- Up to 4 Edge AI analytic apps
- 270° coverage with one IP address
- Wide range tilt angle adjustment mechanism
- IP66, IP67, IK10 Compliant
- Built-in FIPS 140-3 Level 3, CC EAL6+ Compliant Secure Element (NXP® EdgeLock® SE052F)
- NDAA Compliant

SPECIFICATIONS

Camera	
Image Sensor	3x Approx. 1/2.7 type CMOS image sensor
Scanning Area	5.38 mm(H) x 3.02 mm(V) {7/32 inches(H) × 1/8 inches(V)}
Minimum Illumination	Color : 0.21 lx (30IRE, F2.0, 1/30 s, AGC: 11) * 0.3 lx (50IRE, F2.0, 1/30 s, AGC: 11) 0.019 lx (50IRE, F2.0, 16/30 s, AGC: 11)* BW : 0.12 lx (50IRE, F2.0, 1/30 s, AGC: 11) 0.0075 lx (50IRE, F2.0, 16/30 s, AGC: 11)* * Converted value
White Balance	ATW1/ ATW2/ AWC
Shutter Speed	-
Maximum Shutter	[30 fps mode] Max. 1/4000 s to Max. 16/30 s [25 fps mode] Max. 1/4000 s to Max. 16/25 s
AI Auto Exposure	On/Off
Super Dynamic	On/Off (Range : 0 to 31)
Dynamic Range	Max. 108 dB (Super Dynamic: On, Level: 31)
Adaptive Black Stretch	The level can be set in the range of 0 to 255.
Back Light Compensation/High Light Compensation	Back light compensation (BLC) / High light compensation (HLC) / Off (Range : 0 to 31) *only when Super Dynamic/ Intelligent Auto: Off
Fog Compensation	On/Off (Range : 0 to 8) *only when Intelligent Auto / Auto contrast adjust: Off
Maximum Gain (AGC)	The level can be set in the range of 0 to 11.
Color/BW (ICR)	Off/ On(IR Light Off)/ On(IR Light On)/ Auto1(IR Light Off)/ Auto2(IR Light On)/ Auto3(SCC)
IR LED Light	-
White LED Light	-
Digital Noise Reduction	The level can be set in the range of 0 to 255.
Video Motion Detection (VMD)	On/ Off (4 areas available)
Scene Change Detection (SCD)	On/ Off (1 area available)
Audio Detection	-
AI Sound Classification	Selectable from Gunshot, Yell, Vehicle horn, Glass break
Analytics	AI Video Motion Derection, AI People Detection, AI Vehicle Detection, AI Face Detection, AI Occupancy Detection, AI Scene change Detection For details: https://i-pro.com/products_and_solutions/en/surveillance/products/analytics-software 3rd party applications are also available. https://i-pro.com/products_and_solutions/en/surveillance/solutions/edge-ai-platform/application-list
Maximum No. of Applications	4
Docker	-
Privacy Zone	On/Off (Up to 8 zones available)
VIQS	On/Off (Up to 8 zones available)

Image Rotation	0° (Off)/ 90°/ 180° (Upside-down)/ 270°
Image Stabilizer	-
Camera Title (OSD)	On/Off Up to 40 characters, Up to 2 lines (alphanumeric characters, marks)

Lens	
Optical Zoom	2.5x (Motorized zoom / Motorized focus)
Digital (electronic) Zoom	max 10.5x
Focal Length	2.9 mm{1/8 inches} – 7.3 mm{1/4 inches}
Angular Field of View	[16:9 mode] Horizontal : 43 ° (TELE) - 100 ° (WIDE) Vertical : 24 ° (TELE) - 56° (WIDE)
Adjusting Angle	Camera 1, 2, 3 : Horizontal : ±125° (Adjust by horizontal (PAN) angle) Vertical : +10° to +105° (Adjust by vertical (TILT) angle) Yaw : ±90° (Adjust by azimuth (YAW) angle) Twist : ±30° *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.
Maximum Aperture Ratio	1 : 2.0（WIDE） - 1 : 3.0（TELE）
Focus Range	1 m {3.28 ft} – ∞
Aperture Range	F2.0 ～ F3.0

DORI	
Detect (25ppm / 8ppf)	136.5 m {447.8 ft} (TELE) 45.1 m {148.0 ft} (WIDE)
Observe (62.5ppm / 19ppf)	54.6 m {179.1 ft} (TELE) 18.0 m {59.2 ft} (WIDE)
Recognize (125ppm / 38ppf)	27.3 m {89.6 ft} (TELE) 9.0 m {29.6 ft} (WIDE)
Identify (250ppm / 76ppf)	13.6 m {44.8 ft} (TELE) 4.5 m {14.8 ft} (WIDE)

System on Chip	
System on Chip (SoC)	Ambarella CV2

Browser GUI	
GUI / Setup Menu Language	English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese
Browser *1	Microsoft Edge, Firefox, Google Chrome

Network	
Network IF	10BASE-T/ 100BASE-TX/ 1000BASE-T*1 , RJ45 connector
Resolution	[16 : 9 mode] 2688 x 1520 / 2560 x 1440 / 1920×1080 /1280 x 720 / 640×360 / 320×180
H.265/H.264 Transmission Priority/Type	[Transmission priority] Constant bit rate/ VBR/ Frame rate/ Best effort [Transmission type] Unicast port (AUTO)/ Unicast port (MANUAL)/ Multicast
No. of Stream	2
JPEG (MJPEG) Image Quality	10 steps: 0(SUPER FINE) - 9(LOW)
Smart Coding	[GOP(Group of pictures) control] Off/ Low (Variable GOP 1s-8s)/Mid (Variable GOP 4s-16s)/ Advanced (Fixed GOP 60 seconds with 1 second Key frame)/ Frame rate control (Variable GOP 4s-16s with frame rate control) *Advanced and Frame rate control are only available with H.265. [Smart VIQS] On (High)/ On (Low)/ Off [Smart P-picture control] On/Off

Audio Compression Method *2	G.726(ADPCM) : 16 kbps/32 kbps G.711 : 64 kbps AAC-LC: 64 kbps/96 kbps/128 kbps
Audio Transmission Mode	Off / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duplex)
Supported Protocol	IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, SMTP, DNS, NTP, SNMPv1/v2/v3, DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ, LLDP, MQTT IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, RTSP, RTP, RTP/RTCP, SMTP, DHCP, DNS, DDNS, NTP, SNMPv1/v2/v3, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ, SRTP, LLDP, MQTT
No. of Simultaneous Users	Up to 24 users * Depends on network conditions
Secure	FIPS 140-3 level 3, CC EAL6+ (NXP® EdgeLock® SE052F), Device Certificate GlobalSign® pre-installed, HTTPS, User authentication, digest authentication, Host authentication, IEEE802.1X, System log, Image transmission log, brute-force protection, Alteration Detection, Secure boot, Signed firmware
SDXC/SDHC/SD Memory Card (Option)	microSDXC memory card: 64 GB, 128 GB, 256 GB, 512 GB microSDHC memory card: 4 GB, 8 GB, 16 GB, 32 GB microSD memory card: 2 GB
Mobile Terminal Compatibility	iPad / iPhone (iOS 8.0 or later), Android™ terminals
ONVIF®Profile	G / M / S / T

Alarm	
Alarm Source	3 terninals input, VMD alarm, SCD alarm, Command alarm, Audio detection alarm
Alarm Actions	SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notification Indication on browser, TCP alarm notification output, MQTT alarm notification, SNMP trap notification

Input/Output	
Built-in Microphone	-
Audio Input *3	ø3.5 mm stereo mini jack Recommended applicable microphone: Plug-in power type (Sensitivity of microphone: −51 dB to −38 dB (0 dB=1 V/Pa, 1 kHz)) Input impedance: Approx. 2 kΩ (unbalanced) Supply voltage: 2.5 V ±0.5 V [For line input] Input level: Approx. -10 dBV
Audio Output *3	ø3.5 mm stereo mini jack (Audio output is monaural.) Output impedance: Approx. 600 Ω (unbalanced) Output level: -20 dBV
External I/O Terminals *3	ALARM IN1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1) ALARM IN2 (Alarm input 2/ ALARM OUT) (x1) ALARM IN3 (Alarm input 3/ ALARM OUT/ AUX OUT) (x1)
Monitor Output	-

General	
Safety	UL (UL62368-1 3Ed), c-UL (CAN/CSA C22.2 NO.62368-1-19), IEC62368-1 3Ed.
EMC	FCC Part15 Subpart B ClassA, ICES-003 Issue 7 ClassA, EN55032 ClassA, EN55035
Railway Application	-
Power Source / Power Consumption *3	[Power Source] PoE+ (IEEE802.3at Compliant) PoE (IEEE802.3af Compliant) * [Power Consumption] PoE DC 48 V : 270 mA / Approx. 12.95 W (Class 0 device) PoE+ DC 54 V : 320 mA / Approx. 17.3 W (Class 4 device)

Ambient Operating Temperature	–40 °C to +60 °C*2 {–40 °F to 140 °F} (Power On range: –20 °C to +60 °C {–4 °F to 140 °F}) * When using with the IR LED light constantly lit, the upper limit of the operating temperature range is +50 °C {+122 °F}. *When using PoE, the lower limit of the operating temperature range is -30°C {-22 °F}.
Ambient Operating Humidity	10 % to 100 % (no condensation)
Storage Environment	Storage Temperature: -30 °C to +60 °C {-22 °F to +140 °F} Storage Humidity: 10 % to 95 % (no condensation)
Water and Dust Resistance	IP66/ IP67 (IEC 60529), Type 4X (UL50E), NEMA 4X compliant
Shock Resistance	IK10 (IEC 62262)
Wind Resistance	Up to 40 m/s {approx. 89 mph}
Dimensions	When using the attachment plate only: 'ø300 mm × 90 mm (H) {ø11-13/16 inches ×3-17/32 inches (H)}
Mass (approx.)	When using the attachment plate only: (4eyes): 'Approx. 3.3 kg {7.28 lbs} (3eyes): 'Approx. 3.1 kg {6.83 lbs}
Finish	Main body: Aluminum die cast, i-PRO white Outer fixing screws: Stainless steel (Corrosion-resistant treatment) Dome cover: PC resin, Clear
Easy Kitting	-

NOTES

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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OPTIONAL ACCESSORIES

Select a compatible accessory
Accessory Selector (i-pro.com)



WV-QWL506-W
4-screw Wall Mount Bracket



WV-QWL506M1-W
ANSI Male Wall Mount Bracket (1.5”NPT)



WV-QWL501-W
Mount Bracket



WV-QSR503-W
Mount Bracket



WV-QSR503M-W
Mount Bracket



WV-QSR503M1-W
Mount Bracket



WV-QSR503F-W
Mount Bracket



WV-QSR503F1-W
Mount Bracket



WV-QPL500-W
Mount Bracket



WV-QJB503-W
Base Bracket



WV-QCN500-W
Mount Bracket



WV-QCL501-W
Mount Bracket



WV-QCL101-W
Mount Bracket



WV-QCL100-W
Mount Bracket



WV-QCA501A
I/O Cable



WV-Q105A
Mount Bracket



WV-SDB256G
i-PRO SD Memory Card



WV-SDB128G
i-PRO SD Memory Card



WV-SDB064G
i-PRO SD Memory Card



WV-PM500
Compact microphone unit



WJ-PU201P
PoE Injector



WJ-PU201FP
PoE Injector

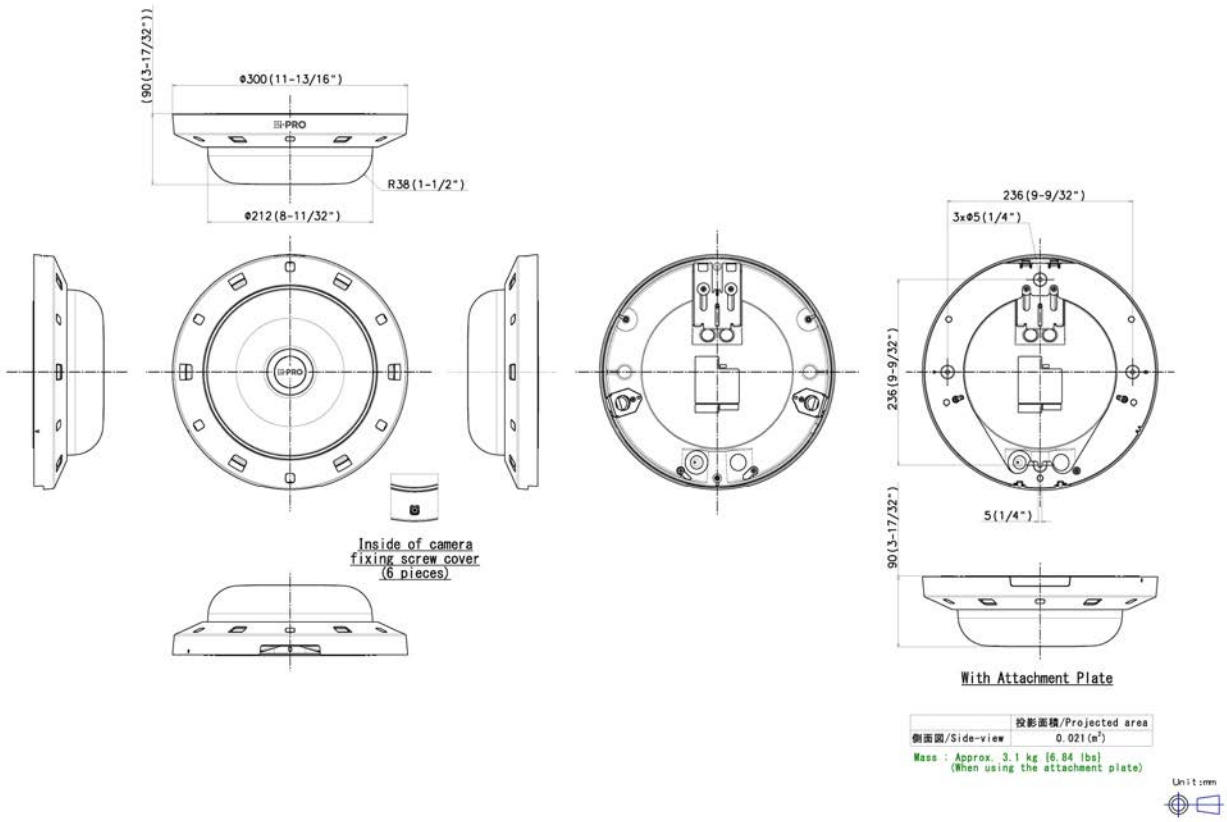


WJ-PU201F/G
PoE Injector



WJ-PU201/G
PoE Injector

APPEARANCE


(90(3-17/32"))
Φ300(11-13/16")
R38(1-1/2")
Φ212(8-11/32")
Inside of camera
fixing screw cover
(6 pieces)
236(9-9/32")
3xΦ5(1/4")
236(9-9/32")
5(1/4")
90(3-17/32")
With Attachment Plate
投影面積/Projected area
側面図/Side-view
0.021(m²)
Mass : Approx. 3.1 kg [6.84 lbs]
(When using the attachment plate)
Unit:mm