WV-S85402A-V2L

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

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- Up to 4 Edge AI analytic apps
- Built-in IR-LED（40m, 131ft）
- 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	2x 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 lx (50IRE, F2.0, 1/30 s, AGC: 11, IRLED: On) 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
Maximum Shutter	[30 fps mode] Max. 1/10000 s to Max. 16/30 s [25 fps mode] Max. 1/10000 s to Max. 16/25 s
Intelligent Auto	On/Off
Super Dynamic	On/Off (Range : 0 to 31)
Dynamic Range	Max. 108 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
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	Maximum irradiation distance: 40 m {Approx. 131 ft} (30IRE)* 30 m {Approx. 99 ft} (50IRE) * Converted value
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)
AI Sound Classification	Selectable from Gunshot, Yell, Vehicle horn, Glass break
Analytics	AI-VMD, 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
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°

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}
Focus Adjustment	Auto focus
Angular Field of View	[16:9 mode] Horizontal : 43 ° (TELE) - 100 ° (WIDE) Vertical : 24 ° (TELE) - 56° (WIDE)
Adjusting Angle	Camera 1, 2: Horizontal: -50° to +230° (Adjust by horizontal (PAN) angle) Vertical: +10° to +105° (Adjust by vertical (TILT) angle) Yaw: ±90° (Adjust by azimuth (YAW) angle)
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	Image Quality : 10 steps
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, FTP, SFTP, 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, FTP, SFTP, 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 terminals 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 For microphone input : 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)
USB WiFi Adapter	Yes (for adjustment)

General	
Safety	UL62368-1 3Ed, CAN/CSA C22.2 NO.62368-1-19
EMC	FCC Part15 Subpart B, ClassA, SDoC, ICES-003 Issue 7 ClassA, EN55032:2015/A11 ClassA, EN55035:2017/A11
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 : 280 mA / Approx. 15.1 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 Temperature & Humidity	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: 250 mm(D)× 150 mm (W) × 105 mm (H) {9-27/32" inches (D) ×5-29/32 inches (W) ×4-1/8 inches (H)}
Mass (approx.)	When using the attachment plate only: Approx. 1.8 kg {3.97 lbs}
Finish	Main body: Aluminum die cast, i-PRO white Outer fixing screws: Stainless steel (Corrosion-resistant treatment) Dome cover: PC resin, Clear

NOTES

*1 For information on the operation verification of the web browsers, refer to our support website <Control No.: C0132>.
*2 When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity) .
*3 When using with them, WV-QCA501A cable is required.

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-QSR507-W
Mount Bracket

WV-QSR507M-W
Mount Bracket

WV-QSR507M1-W
Mount Bracket

WV-QSR507F-W
Mount Bracket

WV-QSR507F1-W
Mount Bracket

WV-QPL500-W
Mount 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

PPRM35AW
Parapet Mount Bracket

WV-SDB256G
i-PRO SD Memory Card

WV-SDB128G
i-PRO SD Memory Card

WV-SDB064G
i-PRO SD Memory Card

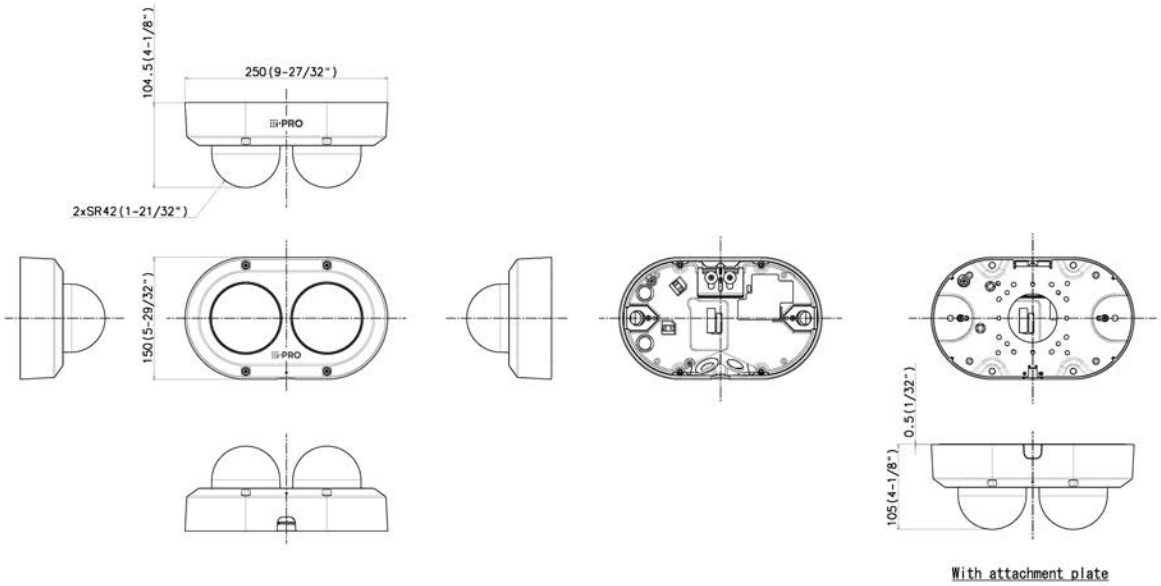
WV-PM500
Compact microphone unit

WJ-PU201P
PoE Injector

WJ-PU201F/G
PoE Injector

WJ-PU201/G
PoE Injector

APPEARANCE



	投影面積/Projected area
平面図/Top-view	0.020(m²)
側面図/Side-view	0.011(m²)

Mass : Approx. 1.6 kg [3.53 lbs]
(When using the attachment plate)

Unit:mm