

# WV-S85402-V2L1

2 x 4MP IR Outdoor Multi-directional Network Camera with AI Engine

## Multi-directional dual sensor camera



- 2 x 4MP Multi-directional camera
- One IP address, One VMS license
- Up to 4 Edge AI analytic apps
- Built-in IR-LED (40m, 131ft)
- Wide angle of view (Horizontal 100°)
- Corridor mode (90 degrees or 270 degrees in image rotation)
- IP66, IP67, IK10 certified
- Built-in FIPS 140-2 Level 3 Certified SecureElement (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant

[Learn More](#)



# SPECIFICATIONS

Camera	
Image Sensor	2x 1/2.7 type CMOS image sensor
	5.38 mm(H) x 3.02 mm(V) {7/32 inches(H) x 1/8 inches(V)}
Minimum Illumination	Color : 0.21 lx (30IRE, F2.0, 1/30 s) Color : 0.3 lx (50IRE, F2.0, 1/30 s) BW : 0.12 lx {50IRE, F2.0, 1/30 s} BW : 0 lx {50IRE, F2.0, 1/30 s with IR LED}
White Balance	ATW1/ ATW2/ AWC
Maximum shutter	30 fps mode: Max.1/10000s to Max.16/30s 25 fps mode: Max.1/10000s to Max.16/25s
Intelligent Auto	On / Off
Super Dynamic	On / Off, The level can be set in the range of 0 to 31.
Dynamic Range	108 dB max. (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	BLC/ HLC/ Off The level can be set in the range of 0 to 31. (only when Super Dynamic/ Intelligent Auto: Off)
Fog Compensation	On/ Off The level can be set in the range of 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	High/Middle/Low/Off 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 areas available
Audio Detection	On/Off
AI Sound Classification	Selectable from Gunshot, Yell, Vehicle horn, Glass break
AI Analytics	AI Video Motion Detection, AI Face Detection, AI People Detection, AI Vehicle Detection, AI Non mask Detection, AI Occupancy Detection, AI Scene Change Detection  For details : <a href="https://i-pro.com/products_and_solutions/en/surveillance/products/analytics-software">https://i-pro.com/products_and_solutions/en/surveillance/products/analytics-software</a> 3rd party applications are also available. <a href="https://i-pro.com/products_and_solutions/en/surveillance/solutions/edge-ai-platform/application-list">https://i-pro.com/products_and_solutions/en/surveillance/solutions/edge-ai-platform/application-list</a>
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)
Focus Adjustment	Auto focus

## Lens

Optical zoom	2.5x (Motorized zoom / Motorized focus)
Extra zoom	max 10.5x (when resolution is 640x360)
Focal length	2.9 mm{1/8 inches} – 7.3 mm{1/4 inches}
Angular Field of View	Horizontal : 43 ° (TELE)-100°(WIDE) Vertical : 24 ° (TELE) - 56°(WIDE)
Maximum Aperture Ratio	1 : 2.0 (WIDE) - 1 : 3.0 (TELE)
Focus range	1 m {3.28 ft} – ∞

## DORI

Detect (25ppm / 8ppf)	Wide: 45.1 m / 148 ft, Tele: 136.5 m / 447.8 ft
Observe (62.5ppm / 19ppf)	Wide: 18.0 m / 59.2 ft, Tele: 54.6 m / 179.1 ft
Recognize (125ppm / 38ppf)	Wide: 9.0 m / 29.6 ft, Tele: 27.3 m / 89.6 ft
Identify (250ppm / 76ppf)	Wide: 4.5 m / 14.8 ft, Tele: 13.6 m / 44.8 ft

## System on Chip (SoC)

System on Chip (SoC)	Ambarella CV2
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## Adjusting Angle

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)
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## Browser GUI

Camera Control	Brightness, AUX On / Off
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
Browser	Microsoft Edge, Firefox, Google Chrome *1

## Network

Network IF	10BASE-T/100BASE-TX/1000BASE-T, RJ45 connector
Resolution H.265/ H.264/ JPEG (MJPEG)	[16:9 mode] 2688 x 1520 / 2560x1440 / 1920 x 1080 / 1280 x 720 / 640x360/320x180
H.265/H.264	[Transmission Mode] Constant bit rate / VBR / Frame rate / Best effort [Transmission Type] Unicast port (AUTO) / Unicast port (MANUAL) / Multicast
JPEG	[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	G.726 (ADPCM) 32 kbps/16 kbps, G.711 64 kbps, AAC-LC 64kbps/96kbps/128kbps *2

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
No. of Simultaneous Users	24 (Number of sessions that can connect to cameras at the same time)
Secure	FIPS 140-2 level 3 (NXP® EdgeLock® SE050F), Device Certificate GlobalSign® pre-installed, HTTPS, User authentication, Digest authentication, Host authentication, IEEE802.1X, System log, Image transmission log, Brute-force protection, Alteration detection, Signed Firmware (V2.50 or later)
SDXC/SDHC/SD Memory Card	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

Input/Output	
Audio input *3	ø3.5 mm stereo mini jack For microphone input : Recommended applicable microphone : Plug-in power type (Sensitivity of microphone : -48 dB±3 dB (0 dB=1 V/Pa, 1 kHz)) Input impedance : Approx. 2 kΩ (unbalanced) Supply voltage : 2.4 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 IN 1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1) ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1) ALARM IN 3 (Alarm input 3/ ALARM OUT /AUX OUT) (x1)
Monitor Output	-
Wi-Fi USB Adapter	Yes (for adjustment)

General	
Safety	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1
EMC	FCC (Part15 ClassA), ICES-003 ClassA, EN55032 ClassA, EN55035
Power Source and Power Consumption	PoE+ (IEEE802.3at compliant) : DC 54 V : 410 mA/Approx. 22.2 W (Class 4 device)
Ambient Operating Temperature	-40 °C to +60 °C* {-40 °F to 140 °F}(Power On range: -20 °C to +60 °C {-4 °F to 140 °F}) Maximum temperature according to NEMA TS 2 (2.2.7) : 74°C(165°F) *When using with the IR LED light constantly lit, the upper limit of the operating temperature range is +50 °C {+122 °F}.
Ambient Operating Humidity	10 % to 100 % (no condensation)
Anti-Condensation System	Temish element
Water and Dust Resistance	IP67/IP66 (IEC 60529), Type 4X (UL50E), NEMA 4X compliant
Shock Resistance	IK10 (IEC 62262)
Wind Resistance	Up to 40 m/s {approx. 89 mph}
Other standard support	NEMA TS 2 (2.2.7-2.2.9)
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.)	Approx. 1.8 kg

Finish

Main body: Aluminum die cast, Black  
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 \(i-pro.com\)](http://i-pro.com).



WV-QWL501-B  
Mount Bracket



WV-QSR507M1-B  
Mount Bracket



WV-QSR507M-B  
Mount Bracket



WV-QSR507F1-B  
Mount Bracket



WV-QSR507F-B  
Mount Bracket



WV-QSR507-B  
Mount Bracket



WV-QSR501-B  
Mount Bracket



WV-QPL500-B  
Mount Bracket



WV-QCN500-B  
Mount Bracket



WV-QCL501-B  
Mount Bracket



WV-QCL101-B  
Mount Bracket



WV-QCL100-B  
Mount Bracket



WV-SDB256G  
i-PRO SD Memory Card



WV-SDB128G  
i-PRO SD Memory Card



WV-SDB064G  
i-PRO SD Memory Card



WV-SDB032G  
i-PRO SD Memory Card



WV-QDC504C  
Dome Cover



WV-QDC200C  
Dome Cover



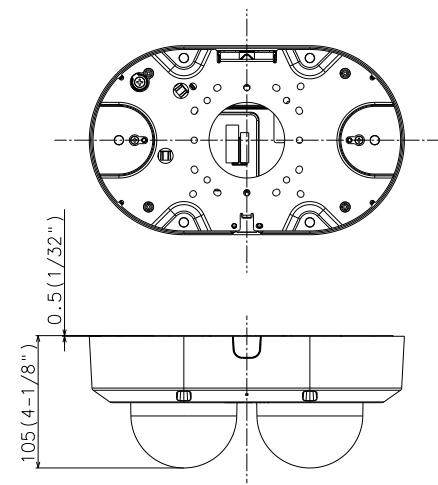
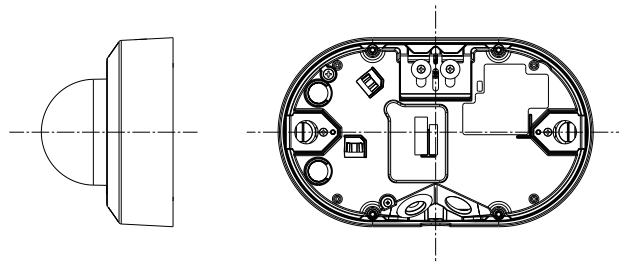
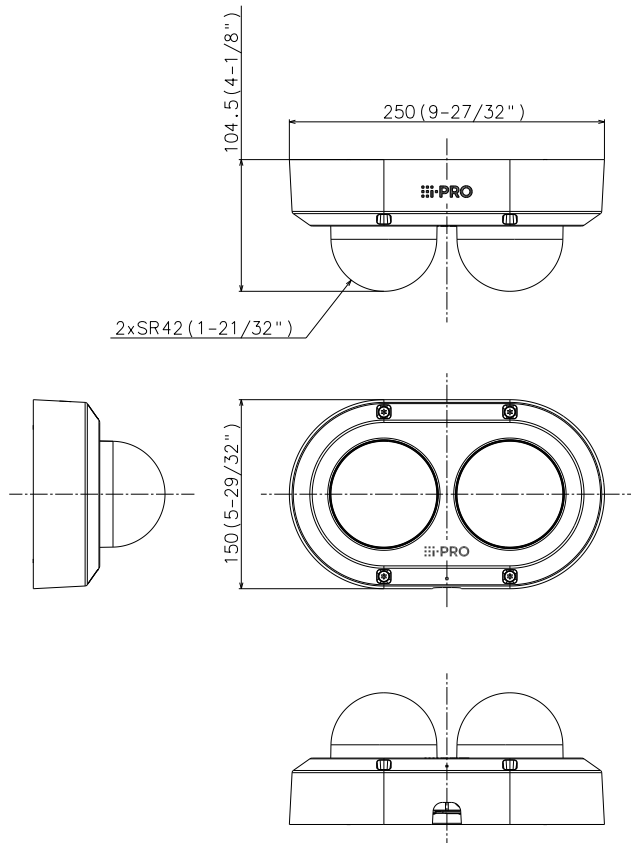
WV-QCA501A  
I/O Cable



WV-PM500  
Compact microphone  
unit for surveillance  
cameras



WV-CW7CN  
Dome cover



With attachment plate

Unit:mm

	投影面積/Projected area
平面図/Top-view	0.020 (m <sup>2</sup> )
側面図/Side-view	0.011 (m <sup>2</sup> )

Mass : Approx. 1.6 kg {3.53 lbs} (When using the attachment plate)