

WV-S8543

3x4MP(12MP) Outdoor Multi-Sensor Network Camera with AI Engine

*As of February 2022, based on i-PRO own research.

Industry thinnest* multi-sensor cameras with AI Engine



- 3 x 4MP(12MP) 2688x1520 up to 30fps
- 270° coverage with one IP address
- Intelligent Auto (with AI Engine)
- Super Dynamic 108dB
- Color night vision (0.21 to 0.3 lx)
- Smart Coding (with AI Engine)
- Remote zoom and focus
- Continuous view assistance
- Wide range tilt angle adjustment mechanism
- Built-in FIPS 140-2 Level 3 Certified Secure Element with TPM functionality (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant



SPECIFICATIONS

Camera	
Image Sensor	3x 1/2.7 type CMOS image sensor
Minimum Illumination	Color : 0.21 lx {30IRE, F1.44, 1/30 s} Color : 0.3 lx {50IRE, F1.44, 1/30 s} BW : 0.12 lx {50IRE, F1.44, 1/30 s}
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	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	BLC (Back light compensation) / HLC (High light compensation) / Off (only when Super dynamic / Intelligent Auto : Off)
Fog Compensation	On / Off (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 / Auto1(Normal) / Auto2(IR Light) / Auto3(SCC)
IR LED Light	—
Digital Noise Reduction	The level can be set in the range of 0 to 255.
Panorama	Panorama mode (H: 170 deg.)
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	Yes
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 (2.5x - 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 / 148.0 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	<p>Camera 1, 2, 3 :</p> <p>Horizontal : ±125° (Adjust by horizontal (PAN) angle)</p> <p>Vertical : +10° to +105° (Adjust by vertical (TILT) angle)</p> <p>Yaw : ±90° (Adjust by azimuth (YAW) angle)</p> <p>Twist : ±30°</p> <p>*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.</p>
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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

Network

Network IF	10Base-T / 100Base-TX / 1000Base-T, RJ45 connector
Resolution H.265/ H.264/ JPEG (MJPEG)	[16 : 9 mode] 2688 x 1520 / 2560 x 1440 / 1920×1080 / 1280 x 720 / 640×360 / 320×180
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 : On (Frame rate control)* / On (Advanced)* / On (Mid) / On (Low) / Off *On (Frame rate control) and On (Advanced) are only available with H.265. Smart VIQS: On(High)/On(Low)/Off, Smart P-picture control: On/Off
Audio Compression	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 140-2 level 3 Certified Secure Element (NXP® EdgeLock® SE050F), Device Certificate GlobalSign® pre-installed, User authentication, Host authentication, HTTPS, 802.1X Support, Data encryption

SDXC/SDHC/SD Memory Card	H.265 / H.264 recording : Manual REC / Alarm REC (Pre/Post) / Schedule REC / Backup upon network failure JPEG recording : Manual REC / Alarm REC (Pre/Post) / Backup upon network failure Compatible 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, 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	
Monitor Output (for Adjustment)	—
Audio input	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	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 (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)

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, EN55024
Power Source and Power Consumption	PoE+ (IEEE802.3at compliant): DC 54 V : 320 mA/Approx. 17.3 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)
Ambient Operating Humidity	10 to 100 % (no condensation)
Anti-Condensation System	Temish element + Heater + moisture absorption gel
Water and Dust Resistance	IP67/IP66 (IEC 60529), Type 4X (UL50E), NEMA 4X compliant
Shock Resistance	IK10 (IEC 62262)
Other standard support	NEMA TS 2 (2.2.7-2.2.9)
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 : 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

AI Analytics applications	
AI Video Motion Detection (AI-VMD)	YES
AI Face Detection	YES
AI People Detection	YES
AI Vehicle Detection	YES
AI Non mask Detection	YES

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 \(i-pro.com\)](http://i-pro.com).



WV-QDC501G
Dome Cover



WV-QWL501-W
Mount Bracket



WV-QSR503-W
Mount Bracket



WV-QCL501-W
Mount Bracket



WV-QJB503-W
Base Bracket

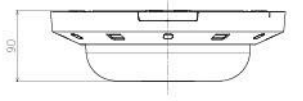
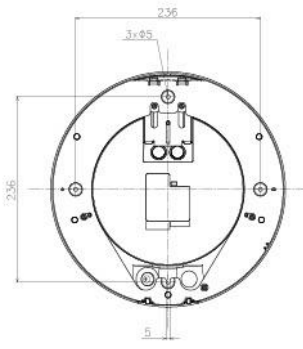
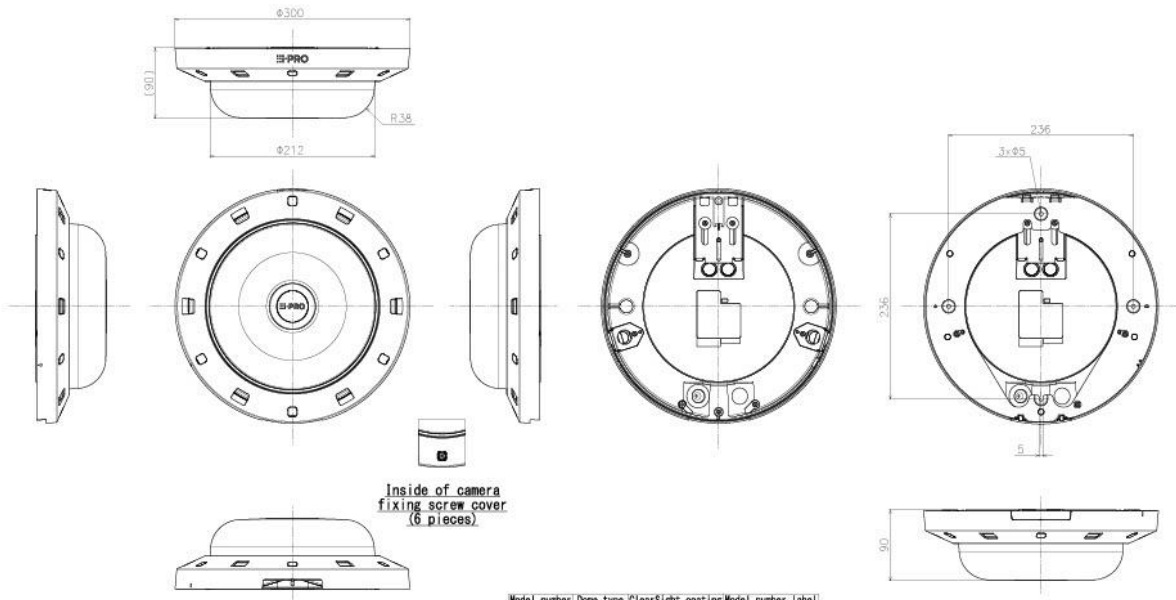


WV-Q105A
Mount Bracket



WV-QCA501A
I/O Cable

APPEARANCE



With Attachment Plate

Inside of camera fixing screw cover (6 pieces)

Model number	Dome type	ClearSight coating	Model number	label
WV-SB573L	Clear dome	No		No
WV-SB573LN	Clear dome	Yes		Yes
WV-SB573LG	Smoke dome	No		Yes
WV-SB563L	Clear dome	No		No
WV-SB563LN	Clear dome	Yes		Yes
WV-SB563LG	Smoke dome	No		Yes
WV-SB543L	Clear dome	No		No
WV-SB543LN	Clear dome	Yes		Yes
WV-SB543LG	Smoke dome	No		Yes
WV-SB543	Clear dome	No		No
WV-SB543N	Clear dome	Yes		Yes
WV-SB543G	Smoke dome	No		Yes

側面圖/Side-view	投影面積/Projected area
	0.021 (m ²)

Mass : Approx. 3.1 kg (6.84 lbs) (When using the attachment plate)