## ::i·PRO

# WV-S8543G

3x4MP(12MP) Outdoor Multi-Directional Network Camera with AI Engine (Smoke Dome type)

### Industry thinnest\* multi-directional 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 (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant

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

# **SPECIFICATIONS**

Camera	
Image Sensor	3x 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 : 0.59 lx {30IRE, F2.0, 1/30 s} Color : 0.85 lx {50IRE, F2.0, 1/30 s} BW : 0.34 lx {50IRE, F2.0, 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
Al Analytics	Al Video Motion Detection, Al Privacy Guard, Al Face Detection, Al People Detection, Al Vehicle Detection, Al Non mask Detection, Al Occupancy Detection, Al 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
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
Suctom on Chin (SoC)	
System on Chip (SoC) System on Chip (SoC)	Ambarella CV2
Adjusting Angle	
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.
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
GUI / Setup Menu Language Browser	•
Browser	Chinese, Japanese
	Chinese, Japanese
Browser	Chinese, Japanese Microsoft Edge, Firefox, Google Chrome
Browser Network Network IF	Chinese, Japanese Microsoft Edge, Firefox, Google Chrome 10Base-T / 100Base-TX / 1000Base-T, RJ45 connector [16 : 9 mode]
Browser Network Network IF Resolution H.265/ H.264/ JPEG (MJPEG)	Chinese, Japanese Microsoft Edge, Firefox, Google Chrome 10Base-T / 100Base-TX / 1000Base-T, RJ45 connector [16 : 9 mode] 2688 x 1520 / 2560 x 1440 / 1920×1080 /1280 x 720 / 640×360 / 320×180 [Transmission Mode] Constant bit rate / VBR / Frame rate / Best effort [Transmission Type]
Browser Network Network IF Resolution H.265/ H.264/ JPEG (MJPEG) H.265/H.264	Chinese, Japanese Microsoft Edge, Firefox, Google Chrome 10Base-T / 100Base-TX / 1000Base-T, RJ45 connector [16 : 9 mode] 2688 x 1520 / 2560 x 1440 / 1920×1080 /1280 x 720 / 640×360 / 320×180 [Transmission Mode] Constant bit rate / VBR / Frame rate / Best effort [Transmission Type] Unicast port (AUTO) / Unicast port (MANUAL) / Multicast [Image Quality]
Resolution H.265/ H.264/ JPEG (MJPEG) H.265/H.264	Chinese, Japanese Microsoft Edge, Firefox, Google Chrome 10Base-T / 100Base-TX / 1000Base-T, RJ45 connector [16 : 9 mode] 2688 x 1520 / 2560 x 1440 / 1920×1080 /1280 x 720 / 640×360 / 320×180 [Transmission Mode] Constant bit rate / VBR / Frame rate / Best effort [Transmission Type] Unicast port (AUTO) / Unicast port (MANUAL) / Multicast [Image Quality] 10 steps 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.

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 k $\Omega$ (unbalanced) Supply voltage : 2.4 V ±0.5 V , For line input : Input level: Approx10 dBV
Audio Output	ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. 600 $\Omega$ (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, EN55035
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)
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 : 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, Smoke

#### 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-QWL501-W

Mount Bracket

WV-QSR503M1-W Mount Bracket



WV-QCN500-W Mount Bracket



WV-SDB032G i-PRO SD Memory Card



WV-QCL501-W Mount Bracket



WV-QDC501G Dome Cover



WV-QSR503F1-W Mount Bracket



WV-QCL101-W Mount Bracket



WV-QDC501C Dome Cover



WV-QSR503-W Mount Bracket



WV-SDB256G

i-PRO SD Memory Card

WV-QCA501A

I/O Cable



WV-QPL500-W

Mount Bracket



WV-SDB064G i-PRO SD Memory Card

WV-QJB503-W

Base Bracket



WV-PM500 Compact microphone unit for surveillance cameras



### **APPEARANCE**

