

### WV-S8563L

3x6MP(19MP) Outdoor Multi-Directional Network Camera with Al Engine

# Industry thinnest\* multi-directional cameras with AI Engine



- 3 x 6MP(19MP) 3328x1872 up to 15fps
- 270° coverage with one IP address
- Intelligent Auto (with Al Engine)
- Super Dynamic 120dB
- Color night vision (0.084 to 0.12 lx)
- Smart Coding (with AI Engine)
- Built-in 360° IR LED
- 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	3 x 1/2.8 type CMOS image sensor
Scanning Area	5.56 mm(H) x 3.13 mm(V) {7/32 inches(H) × 1/8 inches(V)}
Minimum Illumination	Color : 0.084 lx {30IRE, F2.0, 1/30 s} , Color : 0.12 lx {50IRE, F2.0, 1/30 s} BW : 0.05 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	15 fps mode: Max.1/10000s to Max.16/30s 12.5 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.120 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 (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)
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
Al 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	_
Lens	
Optical zoom	1x
Extra zoom	max 5x (when resolution is 640x360)
Focal length	3.1 mm {1/8 inches}
Angular Field of View	Horizontal : 108° Vertical : 56°
Maximum Aperture Ratio	1:1.4
Focus range	3 m {9.84 ft} - ∞
DORI	
Detect (25ppm / 8ppf)	48.4 m / 158.7 ft
Observe (62.5ppm / 19ppf)	19.3 m / 63.5 ft
Recognize (125ppm / 38ppf)	9.7 m / 31.7 ft
Identify (250ppm / 76ppf)	4.8 m / 15.9 ft
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
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] 3328x1872 / 2560×1440 / 1920×1080 / 1280×720 / 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.

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)	
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Audio input	ø3.5 mm stereo mini jack
	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 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)
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Audio input  Audio Output	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 : $2.4 V \pm 0.5 V$ For line input : Input level: Approx. $-10 dBV$ ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. $-600 \Omega$ (unbalanced)
Audio input  Audio Output  External I/O Terminals	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  ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. 600 $\Omega$ (unbalanced) Output level : -20 dBV  ALARM IN 1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1)
Audio input  Audio Output  External I/O Terminals  General	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  ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. 600 $\Omega$ (unbalanced) Output level : -20 dBV  ALARM IN 1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1)
Audio input  Audio Output  External I/O Terminals  General Safety	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: Approx. –10 dBV  ø3.5 mm stereo mini jack (monaural output) Output impedance: Approx. 600 $\Omega$ (unbalanced) Output level: -20 dBV  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)
Audio input  Audio Output  External I/O Terminals  General Safety  EMC	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: Approx. –10 dBV    ø3.5 mm stereo mini jack (monaural output) Output impedance: Approx. 600 $\Omega$ (unbalanced) Output level: -20 dBV    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)    UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1
Audio input  Audio Output  External I/O Terminals	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: $2.4 V \pm 0.5 V$ For line input: Input level: Approx. $-10 \text{ dBV}$ ø3.5 mm stereo mini jack (monaural output) Output impedance: Approx. $600 \Omega$ (unbalanced) Output level: $-20 \text{ dBV}$ 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)  UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  FCC (Part15 ClassA), ICES-003 ClassA, EN55032 ClassA, EN55035  PoE+ (IEEE802.3at compliant):
Audio input  Audio Output  External I/O Terminals  General  Safety  EMC  Power Source and Power Consumption  Ambient Operating Temperature	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: Approx10 dBV  Ø3.5 mm stereo mini jack (monaural output) Output impedance: Approx. 600 Ω (unbalanced) Output level: -20 dBV  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)  UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  FCC (Part15 ClassA), ICES-003 ClassA, EN55032 ClassA, EN55035  PoE+ (IEEE802.3at compliant): DC 54 V: 470 mA/Approx. 25.4 W (Class 4 device)  -40 °C to +60 °C {-40 °F to 140 °F} (Power On range: -20 °C to +60 °C {-4 °F to 140 °F})
Audio input  Audio Output  External I/O Terminals  General Safety  EMC  Power Source and Power Consumption	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: Approx10 dBV  Ø3.5 mm stereo mini jack (monaural output) Output impedance: Approx. 600 Ω (unbalanced) Output level: -20 dBV  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)  UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  FCC (Part15 ClassA), ICES-003 ClassA, EN55032 ClassA, EN55035  PoE+ (IEEE802.3at compliant): DC 54 V: 470 mA/Approx. 25.4 W (Class 4 device)  -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)

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, Clear

#### **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-QSR503F1-W Mount Bracket



WV-QSR503-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-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-QDC501G Dome Cover



WV-QDC501C Dome Cover



WV-QCA501A I/O Cable



WV-PM500 Compact microphone unit for surveillance cameras



## **APPEARANCE**

