

WV-S8544L

4 x 4MP (16MP) Outdoor Multi-Directional Network Camera with AI Engine

Industry thinnest* multi-directional cameras with AI Engine



- 4 x 4MP(16MP) 2688x1520 up to 30fps
- 360° 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)
- Built-in 360° IR LED
- 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

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

SPECIFICATIONS

| Camera | |
|---|---|
| Image Sensor | 4 x 1/2.7 type CMOS image sensor |
| Scanning Area | 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, 1/30s, AGC:11)* 0.3 lx (50IRE, F2.0, 1/30s, AGC:11) 0.019 lx (50IRE, F2.0, 16/30s, AGC:11)* BW : 0 lx (50IRE, F2.0, 1/30s, AGC:11, IR LED: On) 0.12 lx (50IRE, F2.0, 1/30s, AGC:11) 0.0075 lx (50IRE, F2.0, 16/30s, AGC:11)* *Converted value |
| 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(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 : 20 m {Approx. 66 ft} (30IRE) 15 m {Approx. 49 ft} (50IRE) |
| Digital Noise Reduction | The level can be set in the range of 0 to 255. |
| Panorama | Panorama mode (H: 180 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 | AI Video Motion Detection, AI Face Detection, AI People Detection, AI Vehicle Detection, AI Non mask Detection (prior to V2.70), 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 |
| 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 |
|----------------------|---------------|

Adjusting Angle

| | |
|-----------------|---|
| Adjusting Angle | Camera 1, 2, 3, 4 : 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] 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 (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 |
| 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 | |
| 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) |
| 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: 470 mA/Approx. 25.4 W (Class 4 device) |
| Ambient Operating Temperature | -40 °C to +60 °C*7 {-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. 3.3 kg {7.28 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.

Trademarks and registered trademarks

- iPad and iPhone are trademarks of Apple Inc., registered in the U.S. and other countries. - Android is a trademark of Google LLC.
- ONVIF is a trademark of ONVIF, Inc.
- All other trademarks identified herein are the property of their respective owners

©i-PRO Co., Ltd All rights reserved / March 2023

OPTIONAL ACCESSORIES

Select a compatible accessory

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



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-SDB032G
i-PRO SD Memory Card



WV-QDC501G
Dome Cover



WV-QDC501C
Dome Cover

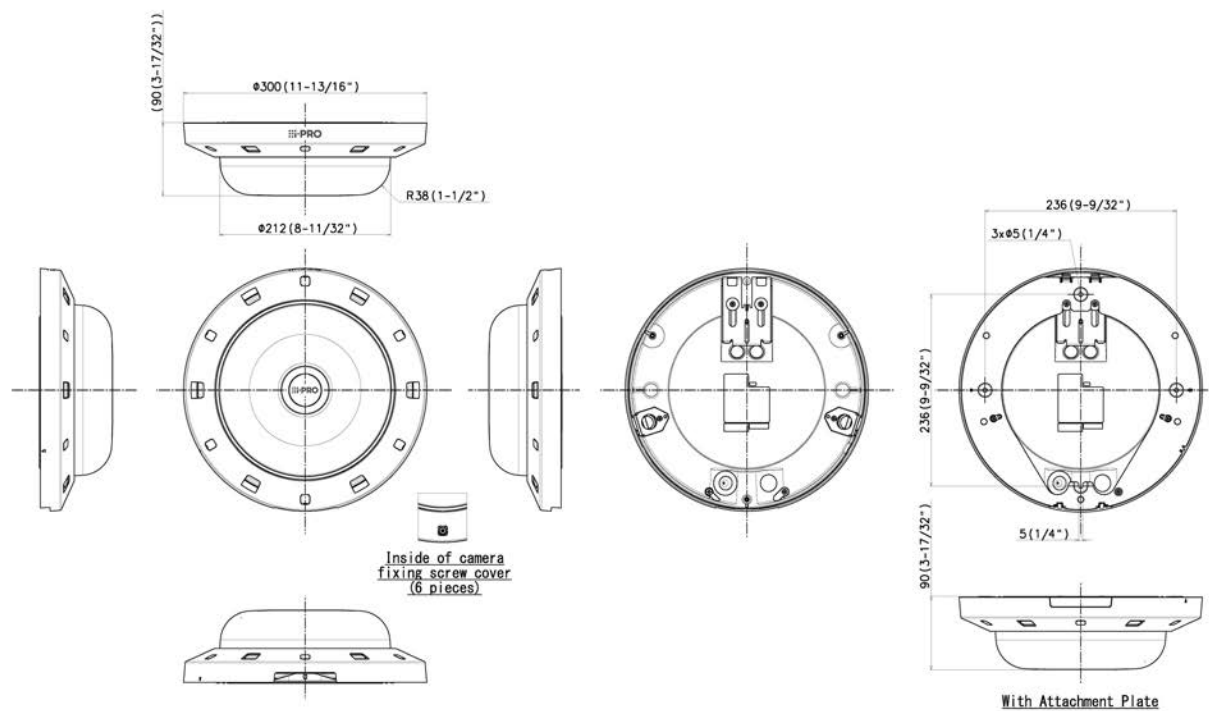


WV-QCA501A
I/O Cable



WV-PM500
Compact microphone
unit for surveillance
cameras

APPEARANCE



| | |
|---|------------------------|
| 投影面積/Projected area | 0.021(m ²) |
| 側面図/Side-view | 0.021(m ²) |
| Mass : Approx. 3.3 kg [7.28 lbs] (When using the attachment plate) | |

Unit:mm