

# WV-S66300-Z4L

2MP Outdoor 40x PTZ Network Camera with AI engine

## Rapid PTZ camera with AI engine and IR-LED



- 2MP 40x PTZ camera
- Innovative New Form Factor PTZ
- Up to 2 Edge AI analytic apps
- AI auto tracking
- Built-in IR-LED (250m/820ft)
- High speed Pan/Tilt drive (Pan: 700deg./s, Tilt: 500deg./s)
- IP66, IK10 certified
- Built-in FIPS 140-2 Level 3 Certified SecureElement (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant

# SPECIFICATIONS

| Camera   |   |
|--|---|
| Image Sensor                                     | Approx. 1/2.8 type CMOS image sensor  |
| Scanning Area                                    | 5.57 mm (H) × 3.13 mm (V)<br>{7/32 inches (H) × 1/8 inches (V)}   |
| Minimum Illumination                             | Color :<br>0.011 lx (30IRE, F1.6, 1/30s, AGC:11)*<br>0.015 lx (50IRE, F1.6, 1/30s, AGC:11)<br>0.001 lx (50IRE, F1.6, 16/30s, AGC:11)*<br><br>BW :<br>0 lx (50IRE, F1.6, 1/30s, AGC:11, IR LED: On)<br>0.006 lx (50IRE, F1.6, 1/30s, AGC:11)<br>0.0004 lx (50IRE, F1.6, 16/30s, AGC:11)*<br>*Converted value |
| White Balance                                    | ATW1 / ATW2 / AWC   |
| Shutter Speed                                    | [60fps mode] 1/60 Fix to 1/10000 Fix<br>[50fps mode] 1/50 Fix to 1/10000 Fix  |
| Maximum shutter                                  | 60 fps/30 fps/15 fps mode: Max.1/4000s to Max.16/30s<br>50 fps/25 fps/12.5 fps mode: Max.1/4000s to Max.16/25s  |
| Intelligent Auto                                 | On / Off  |
| Super Dynamic                                    | On / Off,<br>The level can be set in the range of 0 to 31.  |
| Dynamic Range                                    | Max.144 dB<br>(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<br>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<br>(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<br>Maximum irradiation distance:<br>350 m {Approx. 1150 ft} (30IRE)*<br>250 m {Approx. 820 ft} (50IRE)<br>*Converted value   |
| Digital Noise Reduction                          | The level can be set in the range of 0 to 255.  |
| Video Motion Detection (VMD)                     | On / Off,<br>4 areas available  |
| Scene Change Detection (SCD)                     | On / Off,<br>1 areas available  |
| Audio Detection                                  | On / Off  |
| AI Sound Classification                          | 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<br><br>For details :<br><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><br>3rd party applications are also available.<br><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,<br>Up to 32 zones available   |
| VIQS               | On / Off,<br>Up to 8 zones available  |
| Image Stabilizer   | On / Off<br>(Built-in gyro sensor)  |
| Camera Title (OSD) | On / Off,<br>Up to 40 characters (alphanumeric characters, marks)   |

## Lens

|                        |  |
|------------------------|--|
| Optical zoom           | 40x (Motorized zoom / Motorized Focus)   |
| Extra zoom             | Max.60x<br>(40x-60x when resolution is 1280x720)   |
| Focal length           | 4.25 - 170 mm {5/32 inches - 6-11/16 inches}   |
| Angular Field of View  | [16 : 9 mode] Horizontal : 2.0° (TELE) – 65° (WIDE), Vertical : 1.2° (TELE) – 39° (WIDE) (TBD)<br>[ 4 : 3 mode] Horizontal : 1.5° (TELE) – 51° (WIDE), Vertical : 1.2° (TELE) – 39° (WIDE) (TBD) |
| Maximum Aperture Ratio | 1 : 1.6 (WIDE) – 1 : 4.95 (TELE)   |
| Focus range            | 3.0 m {118-1/8 inches} –∞  |
| Aperture range         | F1.6 - close   |

## DORI

|                            |   |
|----------------------------|---|
| Detect (25ppm / 8ppf)      | Wide: 60.3 m / 197.8 ft, Tele: 2199.9 m / 7217.6 ft |
| Observe (62.5ppm / 19ppf)  | Wide: 24.1 m / 79.1 ft, Tele: 880.0 m / 2887.1 ft   |
| Recognize (125ppm / 38ppf) | Wide: 12.1 m / 39.6 ft, Tele: 440.0 m / 1443.5 ft   |
| Identify (250ppm / 76ppf)  | Wide: 6.0 m / 19.8 ft, Tele: 220.0 m / 721.8 ft     |

## System on Chip (SoC)

|                      |                 |
|----------------------|-----------------|
| System on Chip (SoC) | Ambarella CV25m |
|----------------------|-----------------|

## Adjusting Angle

|                 |  |
|-----------------|--|
| Adjusting Angle | Horizontal : 360° Endless Panning, TILT : -20° to +90°, Yaw : 0° |
|-----------------|--|

## Pan /tilt

|                   |  |
|-------------------|--|
| Panning Range     | 360° Endless Panning   |
| Panning Speed     | Manual: Approx. 0.065°/s – 150°/s, Preset: Up to approx. 700°/s              |
| Tilting Range     | Operational -20° – +90°  |
| Tilting Speed     | Manual: Approx. 0.065°/s –150°/s, Preset: Up to approx. 500°/s               |
| Preset Positions  | 256 positions  |
| Auto Mode         | Auto track/ Auto pan/ Preset sequence/ Patrol                                |
| Self Return       | 10 s/ 20 s/ 30 s/ 1 min/ 2 min/ 3 min/ 5 min/ 10 min/ 20 min/ 30 min/ 60 min |
| Active ClearSight | Yes  |

## Browser GUI

|                           |   |
|---------------------------|---|
| GUI / Setup Menu Language | English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese |
| Browser *1                | Microsoft Edge, Firefox, Google Chrome  |

| Network                               |  |
|---------------------------------------|--|
| Network IF                            | 10Base-T / 100Base-TX, RJ45 connector  |
| Resolution H.265/ H.264/ JPEG (MJPEG) | [16:9 mode (60fps mode)], [16:9 mode (30fps mode)],<br>[16:9 mode (50fps mode)], [16:9 mode (25fps mode)]<br>1920x1080, 1280x720, 640x360, 320x180<br>[4:3 mode (30 fps mode)], [4:3 mode (25 fps mode)]<br>1280x960, VGA, QVGA<br>[4:3 mode (15 fps mode)], [4:3 mode (12.5 fps mode)]<br>2048x1536* , 1280x960, VGA, QVGA<br>*Used bu super resolution techniques                    |
| H.265/H.264 Transmission Mode/Type *2 | [Transmission Mode] Constant bit rate / VBR / Frame rate / Best effort<br>[Transmission Type] Unicast port (AUTO) / Unicast port (MANUAL) / Multicast  |
| JPEG                                  | [Image Quality] 10 steps   |
| Smart Coding                          | GOP (Group of pictures) control:<br>Off/ Low (Variable GOP 1s-8s)/ Mid (Variable GOP 4s-16s) /<br>Advanced(Fixed GOP 60s w/1s key-frame) /<br>Frame rate control (Variable GOP 4s-16s with frame rate control)<br>*Advanced and Frame rate control are only available with H.265.<br>Smart VIQS: On(High)/On(Low)/Off, Smart P-picture control: On/Off                                 |
| Audio compression method *3           | G.726 (ADPCM) : 16 kbps / 32 kbps, G.711 : 64 kbps, AAC-LC*5 : 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,<br>DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ<br>IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, RTSP, RTP, RTP/RTCP, SMTP,<br>DHCP, DNS, DDNS, NTP, SNMPv1/v2/v3, UPnP, IGMP, ICMP, ARP,<br>IEEE 802.1X, DiffServ, SRTP, MQTT, NTCIP  |
| No. of Simultaneous Users             | Up to 14 users (Depends on network conditions)   |
| Secure                                | FIPS 140-2 level 3 (NXP® EdgeLock® SE050F), Device Certificate GlobalSign® pre-installed,<br>HTTPS, User authentication, Digest authentication, Host authentication,<br>IEEE802.1X, System log, Image transmission log, Brute-force protection, Alteration detection, Signed<br>Firmware   |
| SDXC/SDHC/SD Memory Card (Option)     | H.265 / H.264 recording :<br>Manual REC / Alarm REC (Pre/Post) / Schedule REC / Backup upon network failure<br>JPEG recording :<br>Manual REC / Alarm REC (Pre/Post) / Backup upon network failure<br>Compatible SDXC/SDHC/SD Memory Card :<br>microSDXC memory card : 64 GB, 128 GB, 256 GB, 512 GB<br>microSDHC memory card : 4 GB, 8 GB, 16 GB, 32 GB<br>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, Command alarm, Audio detection alarm  |
| Alarm Actions | SDXC/SDHC/SD memory recording, E-mail notification,<br>HTTP alarm notification Indication on browser, TCP alarm notification output |

| Input/Output              |  |
|---------------------------|--|
| Audio Input *4            | ø3.5 mm stereo mini jack<br>Recommended applicable microphone: Plug-in power type<br>(Sensitivity of microphone: -51dB to -38dB (0 dB=1 V/Pa, 1 kHz))<br>Input impedance: Approx. 2 kΩ (unbalanced)<br>Supply voltage: 4.0V±0.5V<br>For line input : Input level : Approx. -10 dBV |
| Audio Output *4           | ø3.5 mm stereo mini jack (monaural output)<br>Output impedance : Approx. 600Ω (unbalanced)<br>Output level : -20 dBV   |
| External I/O Terminals *4 | ALARM IN 1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1)<br>ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1), ALARM IN 3 (Alarm input 3/ AUX OUT) (x1)   |
| Monitor Output            | -  |

## General

|                                    |  |
|------------------------------------|--|
| Safety                             | UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  |
| EMC                                | FCC (Part15 ClassA), ICES-003 Issue 7 ClassA, EN55032 ClassA, EN55035  |
| Other Standard                     | NEMA-TS2   |
| Power Source and Power Consumption | PoE++ (IEEE802.3bt), PoE++ DC54V: 850mA/Approx.45.9W (Class 6 device)  |
| Ambient Operating Temperature      | -50 °C to +60 °C * (-58 °F to +140 °F) (PoE++)<br>(Power On range : -30 °C to +60 °C {-22 °F to +140 °F}) (TBD)<br>Maximum temperature according to NEMA TS 2 (2.2.7) : 74°C(165°F)<br>* 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)  |
| Water and Dust Resistance          | IP66, IEC60529 measuring standard compatible, Type 4X(UL50E), NEMA 4X compliant  |
| Shock Resistance                   | IK10 (IEC 62262)   |
| Wind Resistance                    | Up to 40 m/s {approx. 89 mph}  |
| Dimensions                         | Maximum diameter: $\phi$ 167mm × 205 mm (H) { $\phi$ 6-9/16 inches × 8-1/16 inches (H) }<br>Dome radius SR 77.5 mm {SR 3-1/16 inches}<br>(excluding an attachment for the conduit portion and protruding parts)  |
| Mass (approx.)                     | Approx. 3 kg (without attachment)  |
| Finish                             | Main body :<br>Aluminum die cast, i-PRO white<br>Outer fixing screws : Stainless steel (Corrosion-resistant treatment)<br>Dome cover: Polycarbonate resin, Clear   |
| Other                              | Tamper-resistant enclosure *5  |

## NOTES

\*1 For information on the operation verification of the web browsers, refer to our support website <Control No.: C0132>.

\*2 Transmission for 4 streams can be individually set.

\*3 When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity) .

\*4 When using with them, WV-QCA501A cable is required.

\*5 Component that has a structure on which the screws that are accessible after installation cannot be screwed or unscrewed using an ordinary screwdriver.

### 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-QWL502-W  
Mount Bracket



WV-QWL501-W  
Mount Bracket



WV-QSR506M1-W  
Mount Bracket



WV-QSR506M-W  
Mount Bracket



WV-QSR506F1-W  
Mount Bracket



WV-QSR506F-W  
Mount Bracket



WV-QSR506-W  
Mount Bracket



WV-QPL500-W  
Mount Bracket



WV-QJB505-W  
Base Bracket



WV-QEM505-W  
Ceiling Mount Bracket



WV-QDC508C  
Dome Cover



WV-QCN500-W  
Mount Bracket



WV-QCL501-W  
Mount Bracket



WV-QCL101-W  
Mount Bracket



WV-QCL100-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

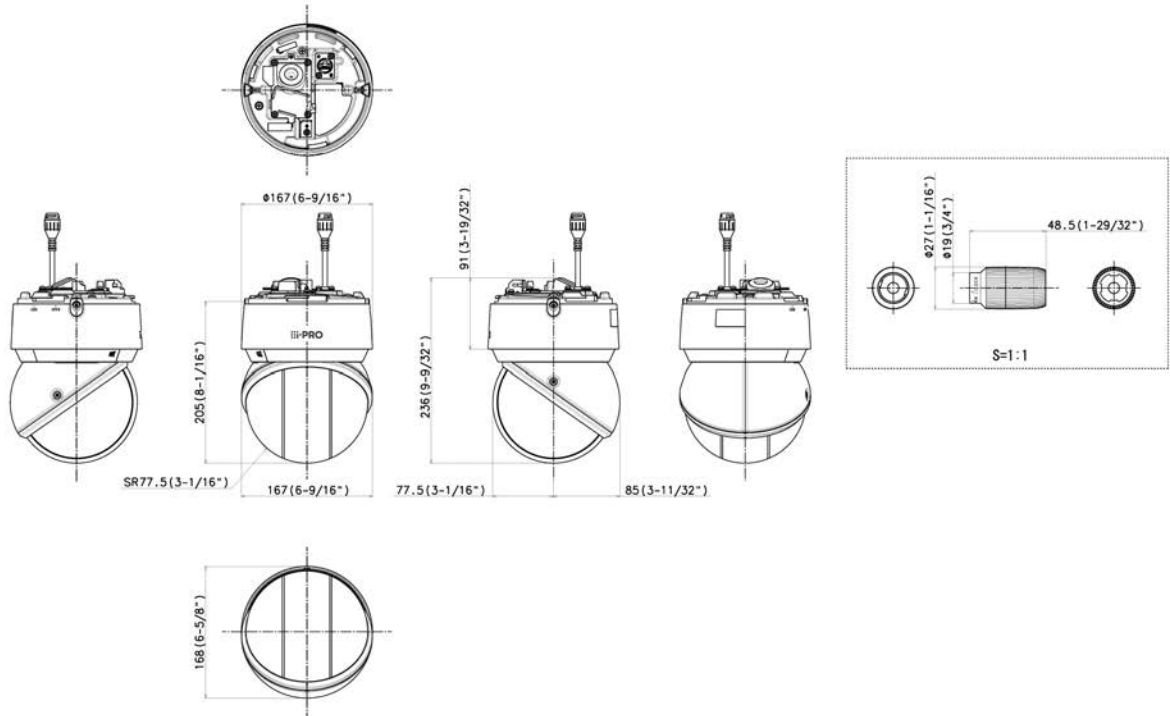


WV-QCA501A  
I/O Cable



WV-PM500  
Compact microphone  
unit for surveillance  
cameras

# APPEARANCE



|                | 投影面積/Projected area     |
|----------------|-------------------------|
| 正面圖/Front-view | 0.029 (m <sup>2</sup> ) |
| 側面圖/Side-view  | 0.029 (m <sup>2</sup> ) |

Mass : Approx. 3 kg [6.62 lbs]

Unit:mm