WV-X67311-Z4L3

2MP AI Rugged PTZ Camera with White LED (40x zoom)

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- 2MP 40x Aero PTZ camera
- Built-in wiper and Auto defroster
- Up to 2 Edge AI analytic apps
- AI Auto tracking
- 24V AC/DC Power supply
- Built-in White LED (280m/918ft)
- Wind resistance (Up to 270km/h, 167mph)
- Wide range of ambient temperatures supported (-50 °C to +65 °C {-58 °F to +149 °F})
- IP66, IP68, IK10 certified
- Built-in FIPS 140-2 Level 3 Compliant SecureElement (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant

i-PRO

SPECIFICATIONS

Camera	
Image Sensor	Approx. 1/2.8 type CMOS image sensor
Scanning Area	5.57 mm (H) × 3.13 mm (V) {7/32 inches (H) × 1/8 inches (V)}
Minimum Illumination	Color : 0 lx (50IRE, F1.6, 1/30s, AGC:11, White LED: On) 0.011 lx (30IRE, F1.6, 1/30s, AGC:11)* 0.015 lx (50IRE, F1.6, 1/30s, AGC:11) 0.001 lx (50IRE, F1.6, 16/30s, AGC:11)* BW : 0.006 lx (50IRE, F1.6, 1/30s, AGC:11) 0.0004 lx (50IRE, F1.6, 16/30s, AGC:11)* *Converted value
White Balance	ATW1/ ATW2/ AWC
Shutter Speed	[60 fps mode] 1/60 Fix to 1/10000 Fix [30 fps/ 15 fps mode] 1/30 Fix to 1/10000 Fix [50 fps mode] 1/50 Fix to 1/10000 Fix [25 fps/ 12.5 fps mode] 1/25 Fix to 1/10000 Fix
Maximum Shutter	[60 fps mode] Max. 1/4000 s to Max. 16/30 s [30 fps/ 15 fps mode] Max. 1/4000 s to Max. 16/30 s [50 fps mode] Max. 1/4000 s to Max. 16/25 s [25 fps/ 12.5 fps mode] Max. 1/4000 s to Max. 16/25 s
Intelligent Auto	On/Off
Super Dynamic	On/Off (Range : 0 to 31)
Dynamic Range	Max. 144 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 (Range : 0 to 31) *only when Super Dynamic/ Intelligent Auto: Off
Fog Compensation	On/Off (Range : 0 to 8) *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(White Light Off)/ Off(White Light On)/ On(White Light Off)/ On(White Light On)/ Auto1(White Light Off)/ Auto1(White Light On)/ Auto2(IR Light)/ Auto3(SCC)
White LED Light	[AC100~240V, PoE++ Type4 Class 8] Maximum irradiation distance: 280 m {Approx. 918 ft} (30IRE)* 200 m {Approx. 656 ft} (50IRE) * Converted value [PoE++ Type3 Class 6] -
Digital Noise Reduction	The level can be set in the range of 0 to 255.
Video Motion Detection (VMD)	On/ Off 4 areas available
Scene Change Detection (SCD)	On/ Off 1 area available
Audio Detection	On/ Off
AI Sound Classification	Selectable from Gunshot, Yell, Vehicle horn, Glass break

Analytics	AI Video Motion Detection, AI Face Detection, AI Privacy Guard, AI People Detection, AI Vehicle Detection, AI Occupancy 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
Max. Number of Applications	2
Privacy Zone	On/Off Up to 32 zones available
VIQS	On/Off Up to 8 zones available
Image Stabilizer	On/Off (Built-in gyro sensor) Available only in the 30/25 fps mode (Built-in gyro sensor)
Camera Title (OSD)	On/Off Up to 40 characters, Up to 2 lines (alphanumeric characters, marks)

Lens	
Optical Zoom	40x
Extra Zoom	-
Digital (electronic) Zoom	40x - 640x
Focal Length	4.25 mm – 170 mm {5/32 inches – 6-11/16 inches}
Angular Field of View	[16:9 mode] Horizontal: 1.9° (TELE) – 66° (WIDE) Vertical: 1.1° (TELE) – 39° (WIDE) [4:3 mode] Horizontal: 1.4° (TELE) – 51° (WIDE) Vertical: 1.1° (TELE) – 39° (WIDE)
Adjusting Angle	(PAN) angle : 360° turning (TILT) angle : -90° - +90° (YAW) angle : ±0°
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)	2315.7 m {7597.6 ft} (TELE) 59.1 m {164.0 ft} (WIDE)
Observe (62.5ppm / 19ppf)	926.3 m {3039.0 ft} (TELE) 23.7 m {77.6 ft} (WIDE)
Recognize (125ppm / 38ppf)	463.1 m {1519.5 ft} (TELE) 11.8 m {38.8 ft} (WIDE)
Identify (250ppm / 76ppf)	231.6 m {759.8 ft} (TELE) 5.9 m {19.4 ft} (WIDE)

System on Chip	
System on Chip (SoC)	Ambarella CV25M

Pan/Tilt	
Panning Range	360° Endless panning
Panning Speed	Manual : Approx. 0.065 °/s – 150 °/s * *Except when frozen Preset : Up to approx. 200 °/s * *Except when leaning forward, frozen, or in strong winds
Tilting Range	Operating range: - Upright: -45° to +90° (level - upward) - Leaning forward: -90° to +90° (downward - level - upward) - Hanging: -30° to +90° (level - downward)

Tilting Speed	Manual: Approx. 0.065 °/s – 150 °/s * *Except when frozen Preset: Up to approx. 200°/s *Except when leaning forward, frozen, or in strong winds
Preset Positions	256
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

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	[16:9 mode(60 fps mode)][16:9 mode(30 fps mode)] [16:9 mode(50 fps mode)][16:9 mode(25 fps mode)] 1920×1080/ 1280×720/ 640×360/ 320×180 [4:3 mode(30 fps mode)] [4:3 mode(25 fps mode)] 1280×960/ VGA/ QVGA [4:3 mode(15 fps mode)] [4:3 mode(12.5 fps mode)] 2048×1536 */ 1280×960/ VGA/ QVGA
H.265/H.264 Transmission Mode/Type	[Transmission Mode] Constant bit rate/ VBR/ Frame rate/ Best effort [Transmission Type] Unicast port (AUTO)/ Unicast port (MANUAL)/ Multicast
No. of Stream	4
JPEG (MJPEG) Image Quality	10 steps: 0(SUPER FINE) - 9(LOW)
Smart Coding	[GOP(Group of pictures) control] Off/ Low (Variable GOP 1s-8s)/Mid (Variable GOP 4s-16s)/ Advanced (Fixed GOP 60 seconds with 1 second Key frame)/ Frame rate control (Variable GOP 4s-16s with frame rate control) *Advanced and Frame rate control are only available with H.265. [Smart VIQS] On (High)/ On (Low)/ Off [Smart P-picture control] On/Off
Audio Compression Method	G.726 (ADPCM): 16 kbps/ 32 kbps G.711: 64 kbps AAC-LC : 64 kbps/ 96 kbps/ 128 kbps
Audio Transmission Mode	Off / 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, FTP, SFTP, 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, FTP, SFTP, LLDP, 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, 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 (Option)	-
Mobile Terminal Compatibility	iPad / iPhone (iOS 8.0 or later), Android™ terminals
ONVIF®Profile	M / S / T

Input/Output	
Audio Input *2	Pre-stripped wires
Audio Output *2	Output impedance: Approx. 600 Ω (unbalanced) Output level: -20 dBV
External I/O Terminals *2	ALARM IN1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1) ALARM IN2 (Alarm input 2/ ALARM OUT) (x1) ALARM IN3 (Alarm input 3/ AUX OUT) (x1) Relay (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 ClassA, EN55032 ClassA, EN55035, EN61000-6-2, EN50121-4, IEC62236-4
Power Source/Power Consumption	[Power Source] 24V AC 50Hz/60Hz 24V DC 90W PoE++ (IEEE802.3bt Type4 Class 8 compliant) 60W PoE++ (IEEE802.3bt Type3 Class 6 compliant) [Power Consumption] Ambient operating temperatute -50 to 65℃ (White LED Light available): 24 V AC 50Hz/60Hz : 4.9 A / Approx. 78.7 W 24 V DC ：3.3 A / Approx. 79.2 W 90W PoE++ DC 54 V : 1.3 A / Approx. 70.2 W (Class 8 device) Ambient operating temperatute -30 to 65℃ (White LED Light not available): 60W PoE++ DC 54 V : 930 mA / Approx. 50.2 W (Class 6 device)
Ambient Operating Temperature	-50 °C to +65 °C {-58 °F to +149 °F} * (Power On range: -30 °C to +65 °C {-22°F to +149°F}) (24V AC/DC, PoE++ Class 8) -30 °C to +65 °C {-22 °F to +149°F} * (Power On range: -20 °C to +65 °C {-4 °F to +149°F}) (PoE++ Class 6) * If the White LED Light is constantly on, the upper limit of the operating temperature range is +50°C.
Ambient Operating Humidity	10 % to 100 % (no condensation)
Storage environment	Storage temperature: −30 °C to +65 °C (−22 °F to +149 °F) Storage humidity: 10 % to 95 % (no condensation)
Water and Dust Resistance	IP68/IP66 (IEC60529), NEMA 4X/NEMA 6P (NEMA250), Type 4X/Type 6P (UL50E),MIL-STD-810-H, 506.6 Rain compliant
Shock Resistance	IK10(IEC62262)*, IEC60068-2-75(20J) compliant, IEC60068-2-27 compliant, NEMA TS2 2.2.9 compliant *Excluding front glass and LED cover
Vibration Resistance	IEC60068-2-6 compliant, NEMA TS2 2.2.8 compliant
Corrosion Resistance	ISO14993 compliant, ISO12944-6 C5-M compliant, MIL-STD-810-H, 509.7 Salt Fog compliant
Wind Resistance	Upright, Hanging: Operable Up to 75 m/s {approx. 167 mph} Non-destructive Up to 90 m/s {approx. 201 mph} Leaning forward: Operable Up to 60 m/s {approx. 134 mph} Non-destructive Up to 90 m/s {approx. 201 mph}
Wiper	Continuous (High) / Continuous (Low) / 1 shot / Washer *1 shot will automatically stop after 10 reciprocating movements.

Defroster	Glass Heater (Transparent heater type) Auto: ON (Approx. 5°C) / OFF (Approx. 10°C) Manual: ON (manual) / OFF (5 – 185 min. timer) *Outside temperature is a converted value from the internal thermal sensor and may fluctuate due to rain, wind, and snow
Environmental Resistance	[Temperature / Humidity] IEC60068-2-1 compliant, IEC60068-2-2 compliant, IEC60068-2-14 compliant, IEC60068-2-30 compliant, IEC60068-2-78 compliant, MIL-STD-810-H, 501.7 High Temperature compliant, MIL-STD-810-H, 502.7 Low Temperature compliant, MIL-STD-810-H, 503.7 Temperature Shock compliant, MIL-STD-810-H, 507.6 Humidity compliant, NEMA TS2 2.2.7 compliant [Solar Radiation] MIL-STD-810-H, 505.7 Solar Radiation compliant [Low Pressure Altitude] MIL-STD-810-H, 500.6 Low Pressure Altitude compliant
Dimensions	226 mm (W) x 450 mm (H) x 266 mm (D) {8-29/32 inches (W) x 17-23/32 inches (H) x 10-15/32 inches (D)} (excluding the mounting and bump parts)
Mass (approx.)	Approx. 8.1 kg {17.9 lbs} (excluding attachments)
Finish	Body: High-strength salt-resistant resin, die-cast, Gray (Munsell N7 semi-gloss) Clear front cover: Clear glass
Easy Kitting	Yes
Other	Tamper-resistant enclosure*3 NEMA TS2 Compliant Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F) Heavy salt damage resistance specifications (ISO 14993 compliant)

NOTES

*1 For information on the operation verification of the web browsers, refer to our support website <Control No.: C0132>.
*2 When using with them, WV-QCA502 cable is required.
*3 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)

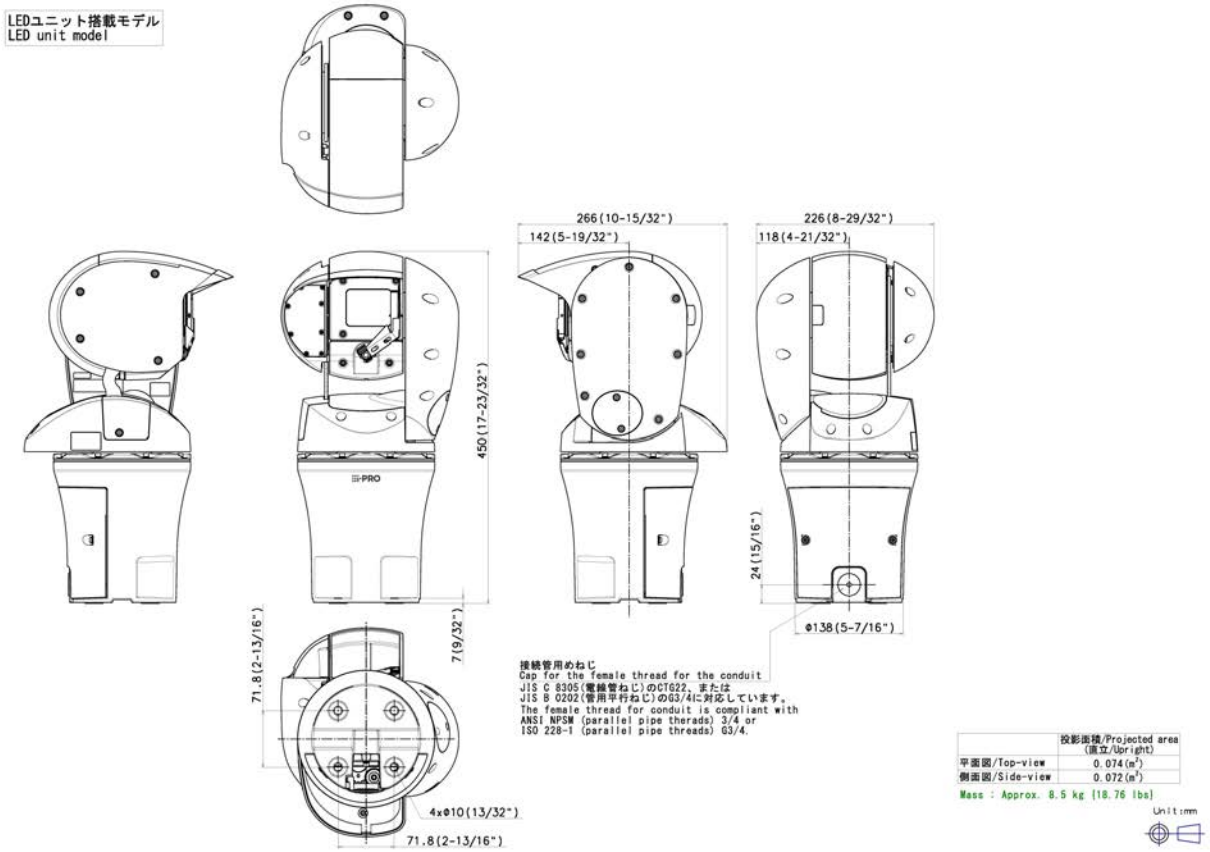
WV-QWL503S-G
Mount Bracket

WV-QWL503-G
Mount Bracket

WV-QCN500S-G
Mount Bracket

WV-QCA502
I/O Cable for Aero PTZ camera

APPEARANCE


LEDユニット搭載モデル
LED unit model
266(10-15/32")
142(5-19/32")
226(8-29/32")
118(4-21/32")
450(17-23/32")
24(15/16")
ø138(5-7/16")
7(9/32")
71.8(2-13/16")
接続管用めねじ
Cap for the female thread for the conduit
JIS C 8305(電線管ねじ)のCTG22、または
JIS B 0202(管用平行ねじ)のG3/4に対応しています。
The female thread for conduit is compliant with
ANSI NPSM (parallel pipe threads) 3/4 or
ISO 228-1 (parallel pipe threads) G3/4.
4xø10(13/32")
71.8(2-13/16")
投影面積/Projected area (直立/Upright)
平面図/Top-view 0.074(m²)
側面図/Side-view 0.072(m²)
Mass : Approx. 8.5 kg (18.76 lbs)
Unit:mm