

WV-X86531-Z2

4 x 5MP Outdoor Multi-directional + 2MP(1080p) 21x PTZ Network Camera with AI Engine

Multi-directional + PTZ Camera with AI Engine

*Outdoor model only, As of February 2023, based on i-PRO own research



- 4 x 5MP multi-directional camera + 2MP 21x PTZ camera
- Discreet design
- Up to 6 Edge AI analytic apps
- AI auto tracking
- No calibration required
- Pan/Tilt speed up to 500 deg/s
- IP66, IP67, IK10 rated
- Built-in FIPS 140-2 Level 3 certified SecureElement
- NDAA compliant

[Learn More](#)



SPECIFICATIONS

| Camera | |
|---|--|
| Image Sensor | <Multi Part> 4x 1/2.7 type CMOS image sensor <PTZ Part> 1/2.8 type CMOS image sensor |
| Scanning Area | <Multi Part> 5.12 mm (H) × 3.84 mm (V) {3/16 inches (H) × 5/32 inches (V)} <PTZ Part> 5.57 mm (H) × 3.13 mm (V) {7/32 inches (H) × 1/8 inches (V)} |
| Minimum Illumination | <Multi Part> Color : 0.12 lx (30IRE, F2.0, 1/30 s) Color : 0.17 lx (50IRE, F2.0, 1/30 s) BW : 0.10 lx (50IRE, F2.0, 1/30 s) <PTZ Part> Color : 0.011 lx (30IRE, F1.6, 1/30 s) Color : 0.015 lx (50IRE, F1.6, 1/30 s) BW : 0.006 lx (50IRE, F1.6, 1/30 s) |
| White Balance | ATW1/ ATW2/ AWC |
| Maximum shutter | <Multi Part> 15 fps mode: Max.1/10000s to Max.16/30s <PTZ Part> 60 fps mode: Max.1/4000s to Max.16/30s 30 fps mode: Max.1/4000s to Max.16/30s 15 fps mode: Max.1/4000s to Max.16/30s |
| Intelligent Auto | On / Off |
| Super Dynamic | <Multi Part> On / Off, The level can be set in the range of 0 to 31. <PTZ Part> On / Off, The level can be set in the range of 0 to 31.*1 |
| Dynamic Range | <Multi Part> 108 dB max. (Super Dynamic: On, Level: 31) <PTZ Part> 144 dB max. (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 | - |
| 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 Privacy Guard, AI Face Detection, AI People Detection, AI Vehicle Detection, AI Non mask Detection, 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 | <Multi Part> On / Off, Up to 8 zones available <PTZ Part> On / Off, Up to 32 zones available |

| | |
|--------------------|--|
| VIQS | <Multi Part> On / Off, Up to 8 zones available <PTZ Part> On / Off, Up to 8 zones available |
| Image Stabilizer | <Multi Part> - <PTZ Part> On / Off (Built-in gyro sensor) |
| Image Rotation | Upside-down: On/Off |
| Camera Title (OSD) | On/ Off, Up to 40 characters, Up to 2 Lines (alphanumeric characters, marks) |
| Focus Adjustment | <Multi Part> - <PTZ Part> Auto focus |

Lens

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| Optical zoom | <Multi Part> 1x <PTZ Part> 21x (Motorized zoom / Motorized focus) |
| Extra zoom | <Multi Part> max 4.0x (when resolution is 640x360) <PTZ Part> max 31x (when resolution is 1280x720) |
| Focal length | <Multi Part> 3.2mm <PTZ Part> 4.0mm - 84.6mm {5/32inches - 3-11/32 inches} |
| Angular Field of View | <Multi Part> Horizontal : 97 deg. / Vertical : 71 deg. <PTZ Part> Horizontal : 3.7 ° to 77 ° / Vertical : 2.2 ° to 44 ° |
| Maximum Aperture Ratio | <Multi Part> 2 <PTZ Part> 1 : 1.6 (WIDE) to 1 : 4.5 (TELE) |
| Focus range | <Multi Part> 1 m {3.28 ft} to ∞ <PTZ Part> 1.5 m {59-1/16 inches} to ∞ |

DORI

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|----------------------------|--|
| Detect (25ppm / 8ppf) | <Multi Part> 45.3 m / 148.6 ft <PTZ Part> Wide: 48.3 m / 158.4 ft, Tele: 1188.9 m / 3900.5 ft |
| Observe (62.5ppm / 19ppf) | <Multi Part> 18.1 m / 59.4 ft <PTZ Part> Wide: 19.3 m / 63.4 ft, Tele: 475.5 m / 1560.2 ft |
| Recognize (125ppm / 38ppf) | <Multi Part> 9.1 m / 29.7 ft <PTZ Part> Wide: 9.7 m / 31.7 ft, Tele: 237.8 m / 780.1 ft |
| Identify (250ppm / 76ppf) | <Multi Part> 4.5 m / 14.9 ft <PTZ Part> Wide: 4.8 m / 15.8 ft, Tele: 118.9 m / 390.0 ft |

System on Chip (SoC)

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| System on Chip (SoC) | <Multi Part> Ambarella CV2 <PTZ Part> Ambarella CV25m |
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Adjusting Angle

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|-----------------|---|
| Adjusting Angle | <Multi Part> Camera 1,2,3,4:Vertical: 40 ±7° (Adjust by vertical (TILT) angle) <PTZ Part> Horizontal : 360° Endless Panning / Vertical : -15 to +195°/Yaw : 0° |
|-----------------|---|

Pan /tilt

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|------------------|---|
| Panning Range | 360 °Endless panning |
| Panning Speed | Manual : 0.065 °/s - 150°/s, Preset : Up to 500 °/s |
| Tilting Range | Operational -15 - +195° |
| Tilting Speed | Manual : 0.065 °/s - 150°/s, Preset : Up to 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 |

Browser GUI

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| Camera Control | Brightness, AUX On / Off |
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| 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

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|---------------------------------------|---|
| Network IF | 10 BASE-T/100 BASE-T/1000 BASE-T, RJ45 connector *2 |
| Resolution H.265/ H.264/ JPEG (MJPEG) | <Multi Part> [4:3] (15fps mode)/[4:3] (12.5fps mode) 3072 x 2304*3, 2560x1920, 1280 x 960, VGA, QVGA [4:3] (15fps Quad mode)/[4:3] (12.5fps Quad mode) 3072 x 2304*3, 2560x1920, 1280 x 960, VGA [16:9] (15fps mode) / [16:9] (12.5fps mode) 3072 x 1728*3, 2560x1440, 1920 x 1080, 1280 x 720, 640x360, 320x180 [16:9] (15fps Quad mode)/[16:9] (12.5fps Quad mode) 3072 x 1728*3, 2560x1440, 1920 x 1080, 1280 x 720, 640x360 <PTZ Part> [16:9 mode (60 fps mode)][16:9 mode (30 fps mode)][16:9 mode (50 fps mode)][16:9 mode (25 fps mode)] 1920x1080, 1280x720, 640x360, 320x180 [4:3 mode (30 fps mode)][4:3 mode (25 fps mode)] 1280x960, VGA, QVGA [4:3 mode (15 fps mode)][4:3 mode (12.5 fps mode)] 2048x1536*3, 1280x960, VGA, QVGA |
| 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): 32 kbps/16 kbps, G.711: 64 kbps, AAC-LC: 64kbps/96kbps/128kbps *4 |
| 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 <Control No.: C0141> *5, DiffServ, LLDP, MQTT |
| No. of Simultaneous Users | <Multi Part> 24 (Number of sessions that can connect to cameras at the same time) * Depends on network conditions <PTZ Part> 14 (Number of sessions that can connect to cameras at the same time) * 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 (V2.50 or later) |
| 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 (iOS 8.0 or later), Android™ terminals |
| ONVIF® Profile | G / M / S / T |

Alarm

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|---------------|--|
| 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

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|----------------|---|
| Audio input *6 | ø3.5 mm stereo mini jack For microphone input : Recommended applicable microphone : Plug-in power type (Sensitivity of microphone : -51 dB~-38dB (0 dB=1 V/Pa, 1 kHz)) Input impedance : Approx. 2 kΩ (unbalanced) Supply voltage : 2.5 V ±0.5 V For line input : Input level: Approx. -10 dBV |
|----------------|---|

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|---------------------------|---|
| Audio Output *6 | ø3.5 mm stereo mini jack (Audio output is monaural.) Output impedance: Approx. 600 Ω (unbalanced) , Output level: -20 dBV |
| External I/O Terminals *6 | 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/ AUX OUT) (x1) |
| Monitor Output | Yes (for adjustment) Φ3.5mm stereo mini jack, NTSC or PAL signal can be output from camera *WV-QCA501A is required |

| 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++ (IEEE802.3bt compliant): DC 54 V : 0.66A/Approx. 35.6 W (Class 5 device) |
| Ambient Operating Temperature | -40 °C to +55 °C {-40 °F to 131 °F} (Power On range: -20 °C to +55 °C {-4 °F to 131°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 |
| 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 | ø250 mm x 195 mm (H) |
| Mass (approx.) | Approx. 3.8 kg |
| Finish | Main body: Aluminum die cast, i-PRO white Outer fixing screws: Stainless steel (Corrosion-resistant treatment) Dome cover: PC resin, Clear |

NOTES

*1 When 60 fps or 50 fps is selected, the Super Dynamic function is automatically set to off.

*2 This model has 2 IP addresses with 1 network interface. Therefore you may be required 2 VMS licenses.

*3 Used by super resolution techniques.

*4 When recording audio on a micro SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).

*5 "<Control No.: C****>" used in this document should be used to search for information on our technical information website (<https://i-pro.com/global/en/surveillance/training-support/support/technical-information>) and will guide you to the right information.

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

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-QWL501-W
Mount Bracket



WV-QSR508M1-W
Mount Bracket



WV-QSR508M-W
Mount Bracket



WV-QSR508F1-W
Mount Bracket



WV-QSR508F-W
Mount Bracket



WV-QSR508-W
Mount Bracket



WV-QPL500-W
Mount Bracket



WV-QEM506-W
Ceiling Mount Bracket



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-QDC502G
Dome Cover



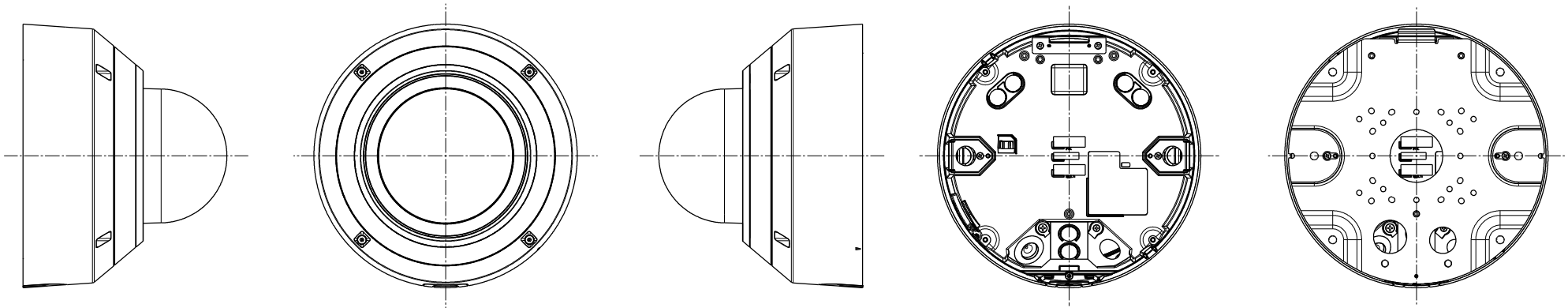
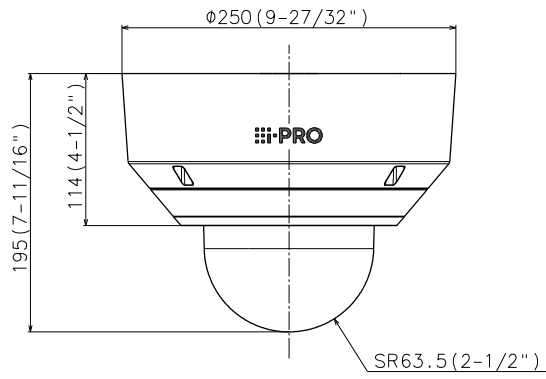
WV-QDC502C
Dome Cover



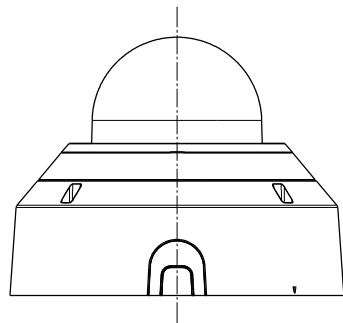
WV-QCA501A
I/O Cable



WV-PM500
Compact microphone
unit for surveillance
cameras



With attachment plate



Unit:mm

| 側面図/Side-view | 投影面積/Projected area |
|---------------|-------------------------|
| | 0.034 (m ²) |

Mass : Approx. 4.0 kg {8.83 lbs} (When using the attachment plate)