# WV-X86530-Z2

3 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

---

- 3 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 Compliant Secure Element
- NDAA compliant

Learn More

# SPECIFICATIONS

| Camera | |
|---|---|
| Image Sensor | <Multi Part> 3x 1/2.7 type CMOS image sensor<br><PTZ Part> 1/2.8 type CMOS image sensor |
| Scanning Area | <Multi Part> 5.12 mm (H) × 3.84 mm (V)<br>{3/16 inches (H) × 5/32 inches (V)}<br><PTZ Part> 5.57 mm (H) × 3.13 mm (V) {7/32 inches (H) × 1/8 inches (V)} |
| Minimum Illumination | <Multi Part><br>Color :<br>0.12 lx (30IRE, F2.0, 1/30 s, AGC:11)*<br>0.17 lx (50IRE, F2.0, 1/30 s, AGC:11)<br>0.011lx (50IRE, F2.0, 16/30 s, AGC:11)*<br>BW :<br>0.10 lx (50IRE, F2.0, 1/30 s, AGC:11)<br>0.007lx (50IRE, F2.0, 16/30 s, AGC:11)*<br><PTZ Part><br>Color :<br>0.011 lx (30IRE, F1.6, 1/30 s, AGC:11)*<br>0.015 lx (50IRE, F1.6, 1/30 s, AGC:11)<br>0.001x (50IRE, F1.6, 16/30 s, AGC:11)*<br>BW :<br>0.006 lx (50IRE, F1.6, 1/30 s, AGC:11)<br>0.0004lx (50IRE, F1.6, 16/30 s, AGC:11)*<br>*Converted Value |
| White Balance | ATW1/ ATW2/ AWC |
| Maximum shutter | <Multi Part><br>15 fps mode: Max.1/10000s to Max.16/30s<br><PTZ Part><br>60 fps mode: Max.1/4000s to Max.16/30s<br>30 fps mode: Max.1/4000s to Max.16/30s<br>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.<br><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)<br><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 (prior to V2.70), AI Occupancy Detection, AI Scene Change Detection<br>For details :<br>https://i-pro.com/products_and_solutions/en/surveillance/products/analytics-software<br>3rd party applications are also available.<br>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<br><PTZ Part> On / Off, Up to 32 zones available |
| VIQS | <Multi Part> On / Off, Up to 8 zones available<br><PTZ Part> On / Off, Up to 8 zones available |
| Image Stabilizer | <Multi Part> -<br><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> -<br><PTZ Part> Auto focus |

| **Lens** | |
|---|---|
| Optical zoom | <Multi Part> 1x<br><PTZ Part> 21x (Motorized zoom / Motorized focus) |
| Extra zoom | <Multi Part> max 4.0x (when resolution is 640x360)<br><PTZ Part> max 31x(when resolution is 1280x720) |
| Digital (Electrical) zoom | <Multi Part> -<br><PTZ Part> 31x ～ 336x |
| Focal length | <Multi Part> 3.2mm<br><PTZ Part> 4.0mm - 84.6mm｛5/32inches - 3-11/32 inches｝ |
| Angular Field of View | <Multi Part> Horizontal : 97 deg. / Vertical : 71 deg.<br><PTZ Part> Horizontal : 3.7 ° to 77 ° / Vertical : 2.2 ° to 44° |
| Maximum Aperture Ratio | <Multi Part> 2<br><PTZ Part> 1：1.6（WIDE） to 1：4.5（TELE） |
| Focus range | <Multi Part> 1 m {3.28 ft} to ∞<br><PTZ Part> 1.5 m {59-1/16 inches} to ∞ |

| **DORI** | |
|---|---|
| Detect (25ppm / 8ppf) | <Multi Part> 45.3 m / 148.6 ft<br><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<br><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<br><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<br><PTZ Part> Wide: 4.8 m / 15.8 ft, Tele: 118.9 m / 390.0 ft |

| **System on Chip (SoC)** | |
|---|---|
| System on Chip (SoC) | <Multi Part> Ambarella CV2, <PTZ Part> Ambarella CV25m |

| **Adjusting Angle** |
|---|

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

| **Pan /tilt** | |
|---|---|
| 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** | |
|---|---|
| Camera Control | Brightness, AUX On / Off |
| Audio | Mic (Line) Input : On / Off , Volume adjustment : Low / Middle / High<br>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 | 10 BASE-T/100 BASE-T/1000 BASE-T, RJ45 connector *2 |
| Resolution H.265/ H.264/ JPEG (MJPEG) | <Multi Part><br>[4:3] (15fps mode)/[4:3] (12.5fps mode)<br>3072 x 2304*3, 2560x1920, 1280 x 960, VGA, QVGA<br>[4:3] (15fps Quad mode)/[4:3] (12.5fps Quad mode)<br>3072 x 2304*3, 2560x1920, 1280 x 960, VGA<br>[16:9] (15fps mode) / [16:9] (12.5fps mode)<br>3072 x 1728*3, 2560x1440, 1920 x 1080, 1280 x 720, 640×360, 320×180<br>[16:9] (15fps Quad mode)/[16:9] (12.5fps Quad mode)<br>3072 x 1728*3, 2560x1440, 1920 x 1080, 1280 x 720, 640×360<br><PTZ Part><br>[16:9 mode (60 fps mode)][16:9 mode (30 fps mode)][16:9 mode (50 fps mode)][16:9 mode (25 fps 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*3,1280x960,VGA,QVGA |
| H.265/H.264 | [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 : On (Frame rate control)* / On (Advanced)* / On (Mid) / On (Low) / Off<br>*On (Frame rate control) and On (Advanced) are only available with H.265.<br>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 | <Multi Part><br>IPv6: TCP／IP、UDP／IP、HTTP、HTTPS、SSL/TLS、SMTP、DNS、NTP、SNMPv1/v2/v3、DHCPv6、RTP、MLD、ICMP、ARP、IEEE 802.1X、DiffServ、MQTT<br>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、MQTT<br><PTZ Part><br>IPv6: TCP／IP、UDP／IP、HTTP、HTTPS、SSL/TLS、SMTP、DNS、NTP、SNMPv1/v2/v3、DHCPv6、RTP、MLD、ICMP、ARP、IEEE 802.1X、DiffServ<br>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, MQTT, LLDP, NTCIP |
| No. of Simultaneous Users | <Multi Part><br>24 (Number of sessions that can connect to cameras at the same time)* Depends on network conditions<br><PTZ Part><br>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,<br>HTTPS, User authentication, Digest authentication, Host authentication,<br>IEEE802.1X, System log, Image transmission log, Brute-force protection, Alteration detection, Signed Firmware |
| SDXC/SDHC/SD Memory Card | microSDXC memory card：64 GB, 128 GB, 256 GB, 512 GB<br>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), AndroidTM 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,<br>HTTP alarm notification Indication on browser, TCP alarm notification output |

| **Input/Output** | |
|---|---|
| Audio input *6 | ø3.5 mm stereo mini jack<br>For microphone input :<br>Recommended applicable microphone : Plug-in power type (Sensitivity of microphone : -51 dB～-38dB (0 dB=1 V/Pa, 1 kHz))<br>Input impedance : Approx. 2 kΩ (unbalanced)<br>Supply voltage：2.5 V ±0.5 V<br>For line input：Input level: Approx. –10 dBV |
| Audio Output *6 | ø3.5 mm stereo mini jack (Audio output is monaural.)<br>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)<br>ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1) , ALARM IN 3 (Alarm input 3/ AUX OUT) (x1) |
| Monitor Output | Yes (for adjustment)<br>Φ3.5mm stereo mini jack, NTSC or PAL signal can be output from camera<br>*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):<br>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}<br>(Power On range: –20 °C to +55 °C {–4 °F to 131°F})<br>Maximum temperature according to NEMA TS 2 (2.2.7) : 74℃(165℉) |
| Ambient Operating Humidity | 10 % to 100 % (no condensation) |

| | |
|---|---|
| Anti-Condensation System | Temish element |
| Water and Dust Resistance | IP67/IP66 (IEC 60529),<br>Type 4X (UL50E),<br>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<br>Outer fixing screws: Stainless steel (Corrosion-resistant treatment)<br>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 usedonthe 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)

WV-QWL506-W
4-screw Wall Mount Bracket

WV-QWL506M1-W
ANSI Male Wall Mount Bracket (1.5”NPT)

WV-QWL501-W
Mount Bracket

WV-QSR508M1-W
Mount Bracket

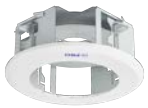
WV-QSR508M-W
Mount Bracket

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-QEM506-B
Ceiling Mount Bracket

WV-QCN500-W
Mount Bracket

WV-QCL501-W
Mount Bracket

WV-QCL101-W
Mount Bracket

WV-QCL100-W
Mount Bracket

WV-Q105A
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-QDC502G
Dome Cover

WV-QDC502C
Dome Cover

WV-QCA501A
I/O Cable

WV-PM500

WJ-PU201P

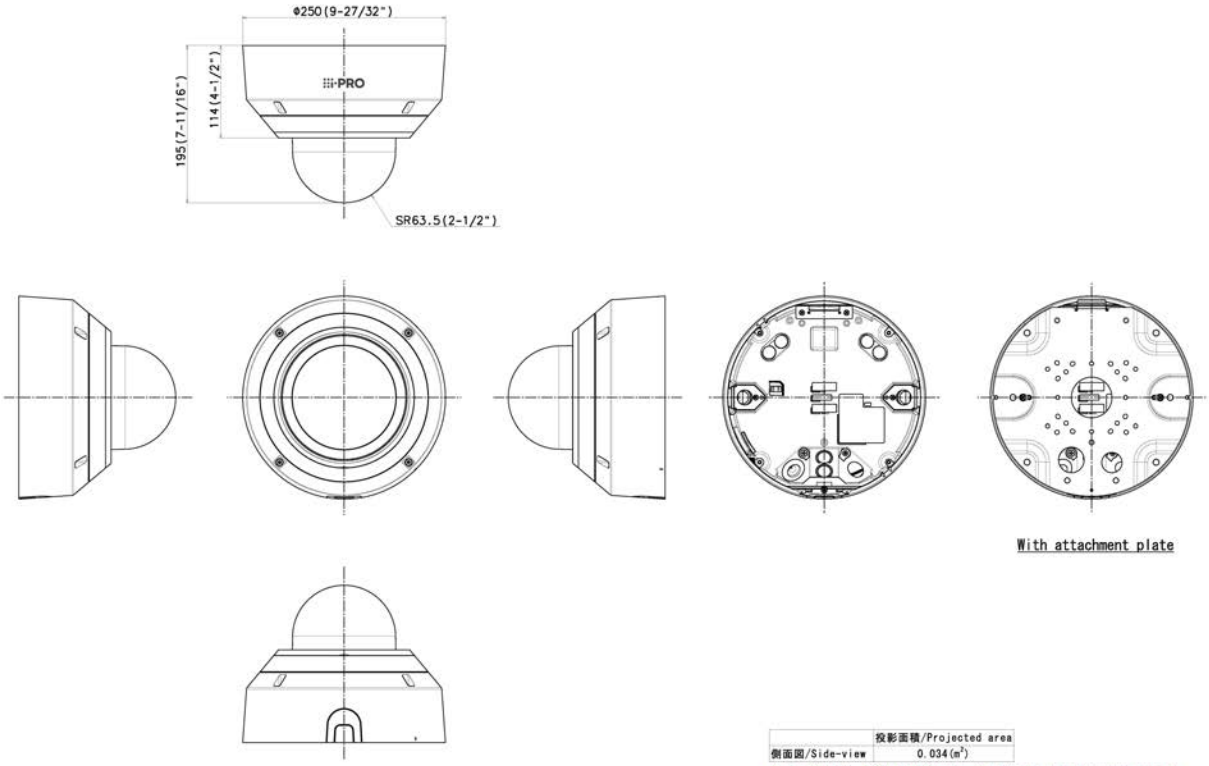
WJ-PU201/G

Compact microphone unit

PoE Injector

PoE Injector

# APPEARANCE




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

Mass : Approx. 3.8 kg (8.39 lbs) (When using the attachment plate)

Unit: mm