

WV-S65302-Z2

2MP (1080p) 21x Outdoor PTZ Network Camera

S-series PTZ camera with AI Engine



- 2MP (1080p) 1920x1080
- 21x optical zoom
- Intelligent Auto (with AI Engine)
- Super Dynamic 144dB
- Color night vision (0.001 to 0.015 lx)
- Durable Pan/Tilt gear mechanism
- IP66, IK10 certified
- Built-in FIPS 140-2 Level 3 Certified Secure Element (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) {7/32 inches (H) × 1/8 inches (V)} |
| Minimum Illumination | Color : 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 [50 fps mode] Max. 1/4000 s to Max. 16/25 s [30 fps mode] Max. 1/4000 s to Max. 16/30 s [25 fps mode] Max. 1/4000 s to Max. 16/25 s [15 fps mode] Max. 1/4000 s to Max. 16/30 s [12.5 fps mode] Max. 1/4000 s to Max. 16/25 s |
| Intelligent Auto | On / Off |
| Super Dynamic | On / Off, The level can be set in the range of 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 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 (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 / Auto2 / Auto3 (SCC) |
| 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 areas available |
| Audio Detection | On / Off |
| AI Sound Classification | 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 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 32 zones available |
| VIQS | On / Off, Up to 8 zones available |
| Image Stabilizer | On / Off (Built-in gyro sensor) |
| Camera Title (OSD) | On / Off, Up to 40 characters (alphanumeric characters, marks) |
| Focus Adjustment | Auto focus |
| Lens | |
| Optical zoom | 21x (Motorized zoom / Motorized Focus) |
| Extra zoom | Max. 31x (21 to 31x : When resolution is 1280 x 720) |
| Digital (electronic) Zoom | 31x - 336x |
| Focal Length | 4.0 - 84.6 mm {5/32 inches - 3-21/64 inches} |
| Angular Field of View | [16 : 9 mode] Horizontal : 3.7° (TELE) - 77° (WIDE), Vertical : 2.2° (TELE) - 44° (WIDE) [4 : 3 mode] Horizontal : 2.9° (TELE) - 58° (WIDE), Vertical : 2.2° (TELE) - 44° (WIDE) |
| Maximum Aperture Ratio | 1 : 1.6 (WIDE) - 1 : 4.5 (TELE) |

| | |
|--------------------------------------|--|
| Focus Range | 1.5 m {50-1/16 inches} - ∞ |
| DORI | |
| Detect (25ppm / 8ppf) | Wide: 51.9m / 170.3 ft, Tele: 1293.8 m / 4244.9 ft |
| Observe (62.5ppm / 19ppf) | Wide: 20.8 m / 68.1 ft, Tele: 517.5 m / 1697.9 ft |
| Recognize (125ppm / 38ppf) | Wide: 10.4 m / 34.1 ft, Tele: 258.8 m / 849.0 ft |
| Identify (250ppm / 76ppf) | Wide: 5.2m / 17.0 ft, Tele: 129.4 m / 424.5 ft |
| System on Chip (SoC) | |
| System on Chip (SoC) | Ambarella CV25M |
| Adjusting Angle | |
| Adjusting Angle | Horizontal : 360° Endless Panning, Vertical : -15° to +195°, Yaw : 0° |
| Pan/tilt | |
| Panning Range | 360° Endless Panning |
| Tilting Range | Operational -15 - +195° |
| Tilting Speed | Manual: Approx. 0.065°/s ~150°/s Preset: Up to approx. 500°/s (PoE+), Up to approx. 350°/s (DC12 V PoE) |
| 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 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-TX, RJ45 connector |
| Resolution H.265/ H.264 JPEG (MJPEG) | [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 , 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: Off/ Low (Variable GOP 1s-8s)/ Mid (Variable GOP 4s-16s)/ Advanced(Fixed GOP 60s w/1s 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 Coding: Auto VIQS: 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, SFTP, MQTT, LLDP 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, SFTP, 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) | 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 (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 |

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|------------------------------------|---|
| 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 : -51 dB to -38 dB (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 |
| 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/ 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 Issue 7 ClassA, EN55032 ClassA, EN55035 |
| Power Source and Power Consumption | DC12 V, PoE (IEEE802.3af), PoE+ (IEEE802.3at) DC12 V: 1.3 A / Approx.15.6 W PoE DC 48 V: 270 mA / Approx.12.95 W (Class 0 device) PoE+ DC 54 V: 340 mA / Approx18.4 W(Class 4 device) |
| Ambient Operating Temperature | -30 °C to +55 °C (-22 °F to +131 °F) (Power On range : -20 °C to +55 °C {-4 °F to +131 °F}) Maximum temperature according to NEMA TS2(2.2.7) : 74 °C(165 °F) |
| Ambient Operating Humidity | 10 to 100 % (no condensation) |
| Anti-Condensation System | Temish element |
| 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} |
| Other standard support | NEMA TS2(2.2.7-2.2.9) |
| Dimensions | ø165 mm x 153 mm (H) {ø6-1/2 inches x 6-1/32 inches (H)} |
| Mass (Approx.) | Approx. 1.7 kg {3.75 lbs.} |
| Finish | Main body : Aluminum die cast, Black polycarbonate resin, i-PRO white Outer fixing screws : Stainless steel (Corrosion-resistant treatment) Dome section : Polycarbonate 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.

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OPTIONAL ACCESSORIES

Select a compatible accessory

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



WV-QWL506-W
4-screw Wall Mount Bracket



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



WV-QCL100-W
Mount Bracket



WV-QCL101-W
Mount Bracket



WV-QCL501-W
Mount Bracket



WV-QCN500-W
Mount Bracket



WV-QEM504-W
Ceiling Mount Bracket



WV-QJB500-W
Mount Bracket



WV-QJB501-W
Base Bracket



WV-QJB504-W
Base Bracket



WV-QPL500-W
Mount Bracket



WV-QSR501-W
Mount Bracket



WV-QSR501F-W
Mount Bracket



WV-QSR501F1-W
Mount Bracket



WV-QSR501M-W
Mount Bracket



WV-QSR501M1-W
Mount Bracket



WV-QWL500-W
Mount Bracket



WV-QWL501-W
Mount Bracket



WV-QCA501A
I/O Cable



WV-QDC502G
Dome Cover



WV-Q105A
Mount Bracket



WV-PM500
Compact microphone unit



PPRM35AW
Parapet Mount Bracket



WV-QDC502C
Dome Cover



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

APPEARANCE

