# WV-S61301-Z2

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

## S series PTZ camera with AI

S series models come standard with AI automatic tracking. It can automatically detect, zoom, and track intruders in a wide area, thereby supporting surveillance operators in many scenes. It also achieves the industry's highest level of drive durability to withstand high-speed and high-frequency camera movement by the automatic monitoring function.

- 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
- Built-in FIPS 140-2 Level 3 Compliant 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)<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>0.006 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 | [60 fps Mode] 1/60 Fix to 1/10000 Fix,<br>[30 fps/15 fps mode] 1/30 Fix to 1/10000 Fix<br>[50 fps Mode] 1/50 Fix to 1/10000 Fix,<br>[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<br>[50 fps mode] Max. 1/4000 s to Max. 16/25 s<br>[30 fps mode] Max. 1/4000 s to Max. 16/30 s<br>[25 fps mode] Max. 1/4000 s to Max. 16/25 s<br>[15 fps mode] Max. 1/4000 s to Max. 16/30 s<br>[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) |
| 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 / 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,<br>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>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 | On / Off,<br>Up to 32 zones available |

| | |
|---|---|
| VIQS | On / Off,<br>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 - 3-11/32 inches} |
| Angular Field of View | [16 : 9 mode]<br>Horizontal : 3.7° (TELE) – 77° (WIDE), Vertical : 2.2° (TELE) – 44° (WIDE)<br>[ 4 : 3 mode]<br>Horizontal : 2.8° (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 {59-1/16 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 : 0 to +350°, Vertical : -30 to +90°, Yaw : 0° |

| **Pan/tilt** | |
|---|---|
| Panning Range | 0 – +350° |
| Panning Speed | Manual: Approx. 0.065°/s – 150°/s<br>Preset: Up to approx. 500°/s |
| Tilting Range | Operational -30° – +90° |
| Tilting Speed | Manual: Approx. 0.065°/s –150°/s Preset: Up to approx. 350°/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-TX, RJ45 connector |

| | |
|---|---|
| Resolution H.265/ H.264 JPEG (MJPEG) | [16 : 9 mode (60 fps mode)] , [16 : 9 mode (30 fps mode)],<br>[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 , 1280x960, VGA, QVGA |
| H.265/H.264 | [Transmission Mode]<br>Constant bit rate / VBR / Frame rate / Best effort<br>[Transmission Type]<br>Unicast port (AUTO) / Unicast port (MANUAL) / Multicast |
| JPEG | [Image Quality]<br>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 | G.726 (ADPCM) : 16 kbps / 32 kbps<br>G.711 : 64 kbps<br>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,<br>DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ, SFTP, MQTT, LLDP<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, SFTP, MQTT, LLDP, 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 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<br>(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 | ø3.5 mm stereo mini jack<br>For microphone input : Recommended applicable microphone : Plug-in power type<br>(Sensitivity of microphone : −51 dB to −38 dB (0 dB=1 V/Pa, 1 kHz))<br>Input impedance : Approx. 2 kΩ (unbalanced)<br>Supply voltage : 2.5 V ±0.5 V<br><br>For line input : Input level : Approx. −10 dBV |
| Audio Output | ø3.5 mm stereo mini jack (monaural output)<br>Output impedance : Approx. 600 Ω (unbalanced)<br>Output level : −20 dBV |

| | |
|---|---|
| External I/O Terminals | 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 |

| 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)<br>DC12 V: 970 mA / Approx. 11.6 W<br>PoE DC 48 V: 270 mA / Approx.12.95 W (Class 0device) |
| Ambient Operating Temperature | -10 °C to +50 °C (+14 °F to +122 °F)<br>(Power On range : 0 °C to +50 °C {+32 °F to +122 °F}) |
| Ambient Operating Humidity | 10 to 90 % (no condensation) |
| Anti-Condensation System | — |
| Dimensions | ø117 mm x 155 mm (H) {ø4-19/32 inches x 6-3/32 inches (H)} |
| Mass (Approx.) | Approx. 1.2 kg {2.65 lbs.} |
| Finish | Main body: Aluminium die cast /PC resin + ABS resin, i-PRO white<br>Lens cover: ABS resin, Black |

# 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)

WV-Q105A
Mount Bracket

WV-QCL100-W
Mount Bracket

WV-QCL101-W
Mount Bracket

WV-QCN500-W
Mount Bracket

WV-QED100C-W
Ceiling Mount Bracket

WV-QED100G-W
Ceiling Mount Bracket

WV-QJB500-W
Mount Bracket

WV-QPL500-W
Mount Bracket

WV-QWD100C-W
Wall Mount Bracket

WV-QWD100G-W
Wall Mount Bracket

WV-QWL500-W
Mount Bracket

WV-QAT100
Inner Cover

WV-QCD100C-W
Dome Cover

WV-QCD100G-W
Dome Cover

WV-PM500
Compact microphone unit

WV-QDC102C
Dome Cover

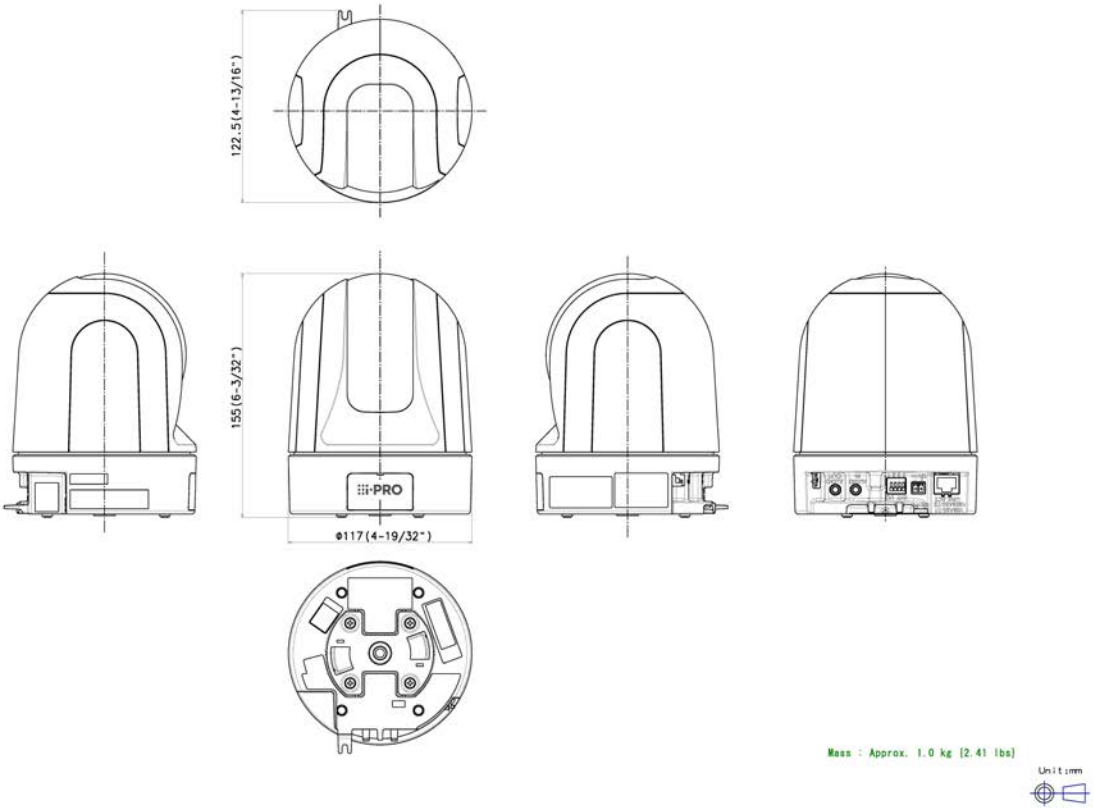
WV-SDB256G
i-PRO SD Memory Card

WV-SDB128G
i-PRO SD Memory Card

WV-SDB064G
i-PRO SD Memory Card

WV-SDB032G
i-PRO SD Memory Card

# APPEARANCE


122.5(4-13/16")
155(6-3/32")
i-PRO
φ117(4-19/32")
Mass : Approx. 1.0 kg [2.41 lbs]
Unit:mm