

# WV-S61301-Z1

2MP (1080p) 10x Indoor PTZ Network Camera

## S-series PTZ camera with AI Engine

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- 2MP (1080p) 1920x1080
- 10x 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,<br>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<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,<br>4 areas available                                                                                                                                                                                                                                                           |
| Scene Change Detection (SCD)                      | On / Off,<br>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<br><br>For details :<br><a href="https://i-pro.com/products_and_solutions/en/surveillance/products/analytics-software">https://i-pro.com/products_and_solutions/en/surveillance/products/analytics-software</a><br>3rd party applications are also available.<br><a href="https://i-pro.com/products_and_solutions/en/surveillance/solutions/edge-ai-platform/application-list">https://i-pro.com/products_and_solutions/en/surveillance/solutions/edge-ai-platform/application-list</a> |
| 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,<br>Up to 40 characters (alphanumeric characters, marks)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Focus Adjustment   | Auto focus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| Lens                      |                                                                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Optical zoom              | 10x (Motorized zoom / Motorized Focus)                                                                                                                                                    |
| Extra zoom                | Max. 15x (10 to 15x : When resolution is 1280 x 720)                                                                                                                                      |
| Digital (electronic) Zoom | 15x - 160x                                                                                                                                                                                |
| Focal Length              | 4.7 – 47 mm {3/16 inches - 1-27/32 inches}                                                                                                                                                |
| Angular Field of View     | [16 : 9 mode]<br>Horizontal : 6.7° (TELE) – 62° (WIDE), Vertical : 3.8° (TELE) – 37° (WIDE)<br>[4 : 3 mode]<br>Horizontal : 5.1° (TELE) - 48° (WIDE), Vertical : 3.8° (TELE) - 37° (WIDE) |
| Maximum Aperture Ratio    | 1 : 1.6 (WIDE) – 1 : 3.0 (TELE)                                                                                                                                                           |
| Focus Range               | 1.5 m {59-1/16 inches} – ∞                                                                                                                                                                |

| DORI                       |                                                   |
|----------------------------|---------------------------------------------------|
| Detect (25ppm / 8ppf)      | Wide: 64.2m / 210.5 ft, Tele: 656.0 m / 2152.3 ft |
| Observe (62.5ppm / 19ppf)  | Wide: 25.7 m / 84.2 ft, Tele: 262.4 m / 860.9 ft  |
| Recognize (125ppm / 38ppf) | Wide: 12.8 m / 42.1 ft, Tele: 131.2 m / 430.5 ft  |
| Identify (250ppm / 76ppf)  | Wide: 6.4m / 21.1 ft, Tele: 65.6 m / 215.2 ft     |

| System on Chip (SoC) |                 |
|----------------------|-----------------|
| System on Chip (SoC) | Ambarella CV25M |

| Adjusting Angle |                                                              |
|-----------------|--------------------------------------------------------------|
| Adjusting Angle | Horizontal : 0 to +350°<br>Vertical : -15° 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<br>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)]*2 , [16 : 9 mode (30 fps mode)],<br>[16 : 9 mode (50 fps mode)]*2 , [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*4 , 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 Coding: Auto VIQS: 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, NTCIP                                          |
| No. of Simultaneous Users            | Up to 14 users<br>(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 (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>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>ø3.5mm stereo mini jack, NTSC or PAL signal can be output from camera                                                                                                                                                                                                                      |
| 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 0 device)                                                                                                                                                                                              |
| 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

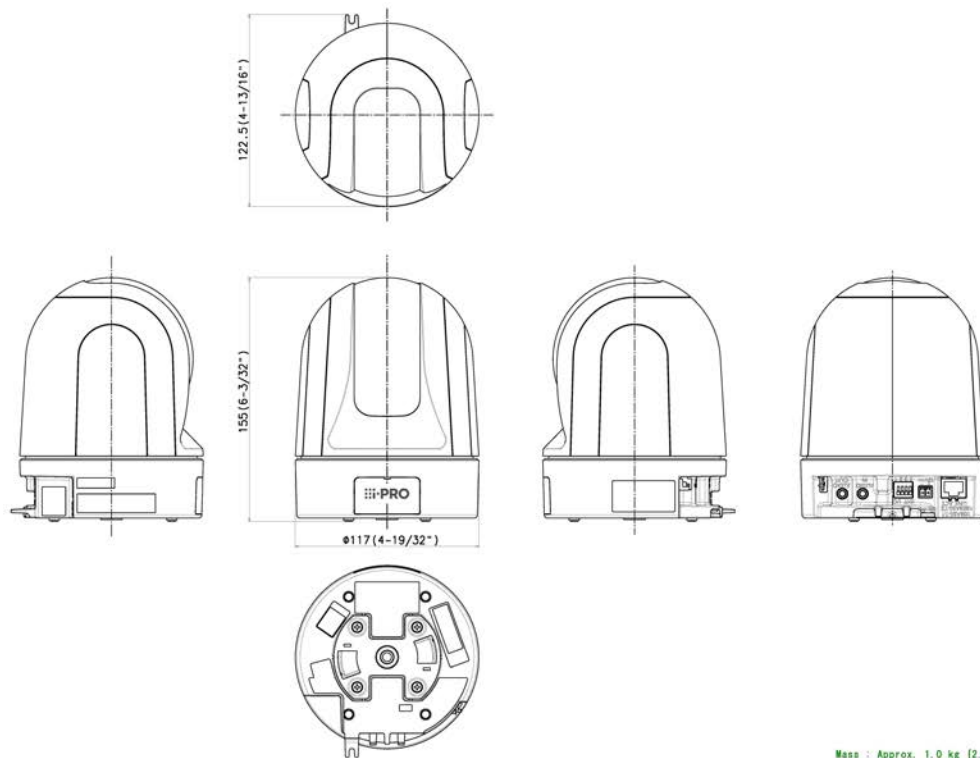
- Safety Precautions : Carefully read the Basic Information, Installation Guide and Operating Instructions before using this product.
- i-PRO Co., Ltd. cannot be held responsible for the performance of the network and/or other manufacturers' products used on the network.
- Masses and dimensions are approximate.
- Specifications are subject to change without notice.

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## APPEARANCE



Mass : Approx. 1.0 kg [2.41 lbs]

