

# WV-S65501-Z1G

5MP 10x Outdoor PTZ Network Camera

## S-series PTZ camera with AI Engine



- 5MP
- 10x optical zoom
- Intelligent Auto (with AI Engine)
- Super Dynamic 132dB
- Color night vision (0.020 to 0.32 lx)
- Durable Pan/Tilt gear mechanism
- IP66, IK10 certified
- Built-in FIPS 140-2 Level 3 Certified SecureElement (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant



# SPECIFICATIONS

| Camera  |  |
|---|--|
| Image Sensor                                      | Approx. 1/2.8 type CMOS image sensor   |
| Scanning Area                                     | 5.12 mm (H)×3.84 mm (V)<br>{3/16 inches (H) × 5/32 inches (V)}   |
| Minimum Illumination                              | Color : 0.32 lx (50IRE, F1.6, 1/30s)<br>Color : 0.020 lx (50IRE, F1.6, 16/30s)<br>BW : 0.18 lx (50IRE, F1.6, 1/30s)<br>BW : 0.011 lx (50IRE, F1.6, 16/30s)   |
| White Balance                                     | ATW1 / ATW2 / AWC  |
| Shutter Speed                                     | [30 fps/15 fps mode] 1/30 Fix to 1/10000 Fix<br>[25 fps/12.5 fps mode] 1/25 Fix to 1/10000 Fix   |
| Intelligent Auto                                  | On / Off   |
| Super Dynamic                                     | On / Off, The level can be set in the range of 0 to 31.  |
| Dynamic Range                                     | Max.132 dB (Super Dynamic : On, Level 31)<br>*When the level is set more than 30, frame rate is limited to 15fps   |
| 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, 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,<br>AI Non mask Detection, 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, 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,<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)   |

|                        |   |
|------------------------|---|
| Focal Length           | 4.7 - 47 mm {3/16 inches - 1-27/32 inches}  |
| Angular Field of View  | [16 : 9 mode]<br>Horizontal : 6.2° (TELE) – 58° (WIDE), Vertical : 3.5° (TELE) – 34° (WIDE)<br>[4 : 3 mode]<br>Horizontal : 6.2° (TELE) – 58° (WIDE), Vertical : 4.6° (TELE) – 44° (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: 92.4 m / 110.8 m ( 303 ft / 363.7 ft), Tele: 945.4 m / 1134.5 m (3101.6 ft / 3722 ft)  |
| Observe (62.5ppm / 19ppf)  | Wide: 36.9 m / 44.3 m (121.2 ft / 145.5 ft), Tele: 378.2 m / 453.8 m (1240.7 ft / 1488.8 ft) |
| Recognize (125ppm / 38ppf) | Wide: 18.5 m / 22.2 m ( 60.6 ft / 72.7 ft), Tele: 189.1 m / 226.9 m ( 620.3 ft / 744.4 ft)   |
| Identify (250ppm / 76ppf)  | Wide: 9.2 m / 11.1 m ( 30.3 ft / 36.4 ft), Tele: 94.5 m / 113.4 m ( 310.2 ft / 372.2 ft)     |

### System on Chip (SoC)

|                      |                |
|----------------------|----------------|
| System on Chip (SoC) | Ambarella CV22 |
|----------------------|----------------|

### Adjusting Angle

|                 |   |
|-----------------|---|
| Adjusting Angle | Horizontal : 360° Endless Panning, Vertical : -15° to +195°, Yaw : 0° |
|-----------------|---|

### Pan/tilt

|                  |   |
|------------------|---|
| Panning Range    | 360° Endless Panning  |
| Panning Speed    | Manual: Approx. 0.065°/s – 150°/s<br>Preset: Up to approx. 500 °/s (PoE+)<br>Preset: Up to approx. 350 °/s (DC12V, PoE) |
| Tilting Range    | Operational -15 – +195°   |
| Tilting Speed    | Manual: Approx. 0.065°/s –150°/s<br>Preset: Up to approx. 500 °/s (PoE+)<br>Preset: Up to approx. 300 °/s (DC12V, 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<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                           | 10Base-T / 100Base-TX, RJ45 connector   |
| Resolution H.265/ H.264 JPEG (MJPEG) | [16 : 9 mode (30 fps mode)], [16 : 9 mode (25 fps mode)]<br>3072x1728, 2560x1440, 1920x1080, 1280x720, 640x360, 320x180<br>[4 : 3 mode (30 fps mode)], [4 : 3 mode (25 fps mode)]<br>3072x2304, 2560x1920, 1280x960, 800x600, VGA, 400x300, 320x240 |
| 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 (Depends on network conditions)   |
| Secure                        | FIPS 140-2 level 3 (NXP® EdgeLock® SE050F),<br>Device Certificate GlobalSign® pre-installed, User authentication,<br>Host authentication, HTTPS, Data encryption, 802.1X Support   |
| SDXC/SDHC/SD Memory Card      | 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 k (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 (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)  |
| 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)<br>When using at TILT rotation speed 300dps<br>DC12 V : 1.3 A / approx. 15.4 W<br>PoE DC 48 V : 270 mA / approx. 12.95 W (Class 0 device)<br>When using at TILT rotation speed 500dps<br>PoE+ DC 54 V : 350 mA / approx. 18.9 W (Class 4 device)                    |
| Ambient Operating Temperature      | -30 °C to +55 °C (-22 °F to +131 °F)<br>(Power On range : -20 °C to +55 °C {-4 °F to +131 °F})<br>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  |
| Dimensions                         | ø165 mm x 139 mm (H) {ø6-1/2 inches x 5-15/32 inches (H)}   |

|                |   |
|----------------|---|
| Mass (Approx.) | Approx. 1.6 kg {3.53 lbs.}  |
| Finish         | Main body : Aluminum die cast, Black polycarbonate resin, i-PRO white<br>Outer fixing screws : Stainless steel (Corrosion-resistant treatment)<br>Dome section : Polycarbonate resin, Smoke |

## 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-QWL501-W  
Mount Bracket



WV-QWL500-W  
Mount Bracket



WV-QSR501M1-W  
Mount Bracket



WV-QSR501M-W  
Mount Bracket



WV-QSR501F1-W  
Mount Bracket



WV-QSR501F-W  
Mount Bracket



WV-QSR501-W  
Mount Bracket



WV-QPL500-W  
Mount Bracket



WV-QJB504-W  
Base Bracket



WV-QJB501-W  
Base Bracket



WV-QJB500-W  
Mount Bracket



WV-QEM503-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-Q105A  
Mount Bracket



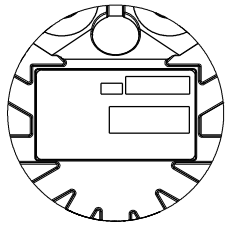
WV-QDC502G  
Dome Cover



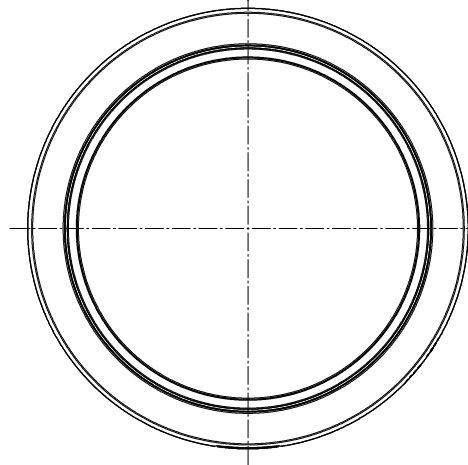
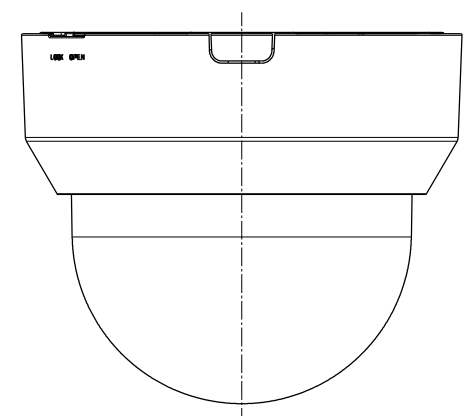
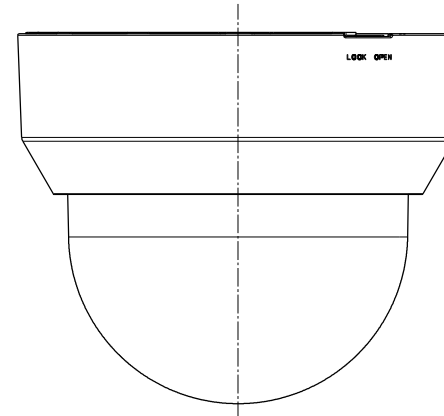
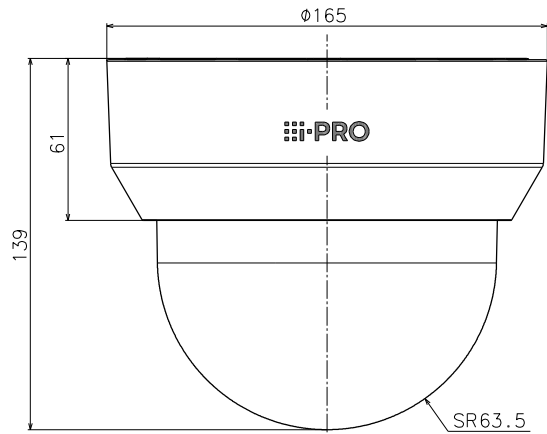
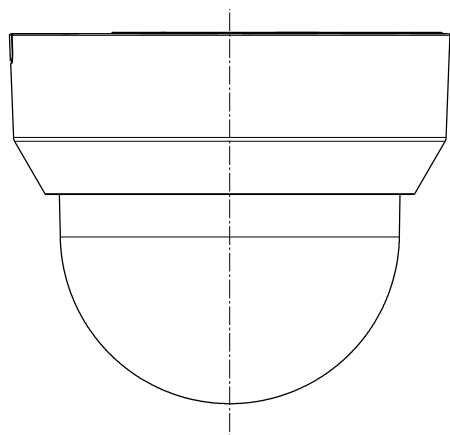
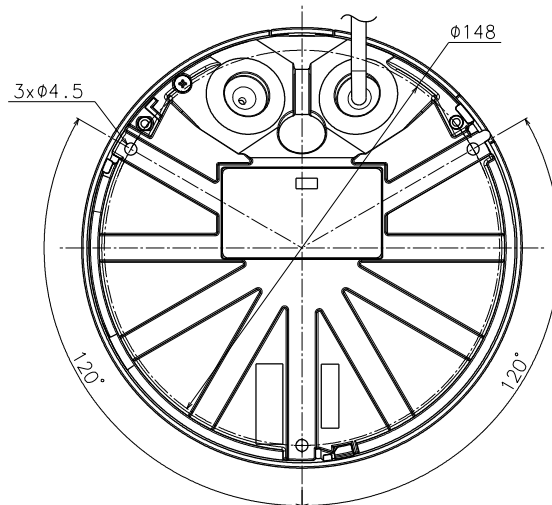
WV-QCA501A  
I/O Cable



WV-PM500  
Compact microphone  
unit for surveillance  
cameras



Object model: WV-B65301-Z1



| Model number    | Dome type  | Coating                                       |  |
|-----------------|------------|---|--|
|                 |            | Decorative cover                              | Lower cover                                      |
| WV-U65301-Z1    | Clear dome | i-PRO white                                   | Black  |
| WV-U65301-Z1G   | Smoke dome |   |  |
| WV-B65301-Z1    | Clear dome | Black   | Metallic black<br>(Heavy salt damage resistance) |
| WV-S65301-Z1    | Clear dome |   |  |
| WV-S65301-Z1G   | Smoke dome | i-PRO white<br>(Heavy salt damage resistance) | Black  |
| WV-S65301-Z1J   | Clear dome |   |  |
| WV-S65301-Z1-1  | Clear dome | i-PRO white<br>(Heavy salt damage resistance) | Black  |
| WV-S65301-Z1-IJ |            |   |  |
| WV-S65301-Z1S   | Clear dome | i-PRO white                                   | Black  |
| WV-S65301-Z1SJ  |            |   |  |
| WV-S65501-Z1    | Clear dome | i-PRO white                                   | Black  |
| WV-S65501-Z1G   | Smoke dome |   |  |
| WV-S65501-Z1J   | Clear dome | i-PRO white                                   | Black  |
| WV-U65301-Z1V   | Clear dome |   |  |
| WV-U65301-Z1GV  | Smoke dome | i-PRO white                                   | Black  |
| WV-S65301-Z1V   | Clear dome |   |  |

|               |                         |
|---------------|-------------------------|
|               | 投影面積/Projected area     |
| 側面圖/Side-view | 0.018 (m <sup>2</sup> ) |

Mass : Approx. 1.3 kg {2.87 lbs}