

# WV-S66700-Z3N

4K Outdoor 30x PTZ Network Camera with AI engine

## Rapid PTZ camera with AI engine



- 4K 30x PTZ camera
- Innovative New Form Factor PTZ
- Up to 3 Edge AI analytic apps
- AI auto tracking
- High speed Pan/Tilt drive (Pan: 700deg./s, Tilt: 500deg./s)
- 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                                    | 5.57 mm (H) × 3.13 mm (V)<br>{7/32 inches (H) × 1/8 inches (V)}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Minimum Illumination                             | Color :<br>0.13 lx (30IRE, F1.8, 1/30s, AGC:11)*<br>0.19 lx (50IRE, F1.8, 1/30s, AGC:11)<br>0.012 lx (50IRE, F1.8, 16/30s, AGC:11)*<br><br>BW :<br>0.1 lx (50IRE, F1.8, 1/30s, AGC:11)<br>0.006 lx (50IRE, F1.8, 16/30s, AGC:11)*<br>*Converted value                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| White Balance                                    | ATW1 / ATW2 / AWC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Shutter Speed                                    | [30 fps mode] 1/30 Fix to 1/10000 Fix<br>[25 fps mode] 1/25 Fix to 1/10000 Fix                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Maximum shutter                                  | [30 fps Mode] Max.1/4000s to Max.16/30s<br>[25 fps Mode] Max.1/4000s to Max.16/25s                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Intelligent Auto                                 | On / Off                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Super Dynamic                                    | On / Off,<br>The level can be set in the range of 0 to 31.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Dynamic Range                                    | Max.132 dB<br>(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 (IR Light Off) / On (IR Light On) / Auto1 (IR Light Off) / Auto2 (IR Light On) / 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<br>(Built-in gyro sensor)                             |
| Image Rotation     | On / Off                                                       |
| Camera Title (OSD) | On / Off, Up to 40 characters (alphanumeric characters, marks) |

| Lens                      |                                                                                          |
|---------------------------|------------------------------------------------------------------------------------------|
| Optical zoom              | 30x (Motorized zoom / Motorized focus)                                                   |
| Extra zoom                | Max. 90x (30x - 90x when resolution is 1280x720)                                         |
| Digital (electronic) Zoom | 90x - 480x                                                                               |
| Focal length              | 4.5mm - 135mm (3/16 inches - 5-5/16 inches)                                              |
| Angular Field of View     | [16 : 9 mode] Horizontal : 2.5° (TELE) - 62° (WIDE), Vertical : 1.4° (TELE) - 37° (WIDE) |
| Maximum Aperture Ratio    | 1 : 1.8 (WIDE) - 1 : 4.7 (TELE)                                                          |
| Focus range               | 3.0 m {118-1/8 inches} -∞                                                                |
| Aperture range            | F1.8 - close                                                                             |

| DORI                       |                                                       |
|----------------------------|-------------------------------------------------------|
| Detect (25ppm / 8ppf)      | Wide: 127.8 m / 419.3 ft, Tele: 3519.7 m / 11547.6 ft |
| Observe (62.5ppm / 19ppf)  | Wide: 51.1 m / 167.7 ft, Tele: 1407.9 m / 4619.0 ft   |
| Recognize (125ppm / 38ppf) | Wide: 25.6 m / 83.9 ft, Tele: 703.9 m / 2309.5 ft     |
| Identify (250ppm / 76ppf)  | Wide: 12.8 m / 41.9 ft, Tele: 352.0 m / 1154.8 ft     |

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

| Adjusting Angle |                                                                  |
|-----------------|------------------------------------------------------------------|
| Adjusting Angle | Horizontal : 360° Endless Panning, TILT : -20° to +90°, Yaw : 0° |

| Pan /tilt         |                                                                              |
|-------------------|------------------------------------------------------------------------------|
| Panning Range     | 360° Endless panning                                                         |
| Panning Speed     | Manual: Approx. 0.065°/s - 150°/s<br>Preset: Up to approx. 700°/s            |
| Tilting Range     | Operational range -20° - +90°                                                |
| Tilting Speed     | Manual: Approx. 0.065°/s -150°/s Preset: Up to approx. 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 |
| Active ClearSight | Yes                                                                          |

| Browser GUI               |                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------|
| GUI / Setup Menu Language | English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese |
| Browser *1                | 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) ]<br>[16:9 mode (25 fps mode) ]<br>3840x2160/ 2560x1440/ 1920x1080/<br>1280x720/ 640x360/ 320x180                                                                                                                                                                                                                                                             |
| H.265/H.264 Transmission Mode / Type *2 | [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:<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 method *3             | 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<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, 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<br>GlobalSign® pre-installed,<br>HTTPS, User authentication, Digest authentication, Host authentication,<br>IEEE802.1X, System log, Image transmission log, Brute-force protection,<br>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 *4            | ø3.5 mm stereo mini jack<br>Recommended applicable microphone: Plug-in power type<br>(Sensitivity of microphone:-51dB to -38dB (0 dB=1 V/Pa, 1 kHz))<br>Input impedance: Approx. 2 kΩ (unbalanced)<br>Supply voltage: 4.0V±0.5V<br>For line input : Input level : Approx. -10 dBV |
| Audio Output *4           | ø3.5 mm stereo mini jack (Audio output is monaural.)<br>Output impedance: Approx. 600 Ω (unbalanced)<br>Output level: -20 dBV                                                                                                                                                     |
| External I/O Terminals *4 | 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            | -                                                                                                                                                                                                                                                                                 |

| 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                                                                                                                                                                                                                           |
| Other Standard                     | NEMA-TS2                                                                                                                                                                                                                                                                                        |
| Power Source and Power Consumption | PoE++ (IEEE802.3bt compliant)<br>DC 54 V : 700 mA/Approx. 37.8 W (Class 6 device)                                                                                                                                                                                                               |
| Ambient Operating Temperature      | -50 °C to 60 °C * {-58 °F to 140 °F}<br>(Power On range: -30 °C to +60 °C {-22 °F to 140 °F})<br>Maximum temperature according to NEMA TS 2 (2.2.7) : 74°C (165°F)<br>* When using with the IR LED light constantly lit, the upper limit of the operating temperature range is +50°C {+122 °F}. |
| Ambient Operating Humidity         | 10 to 100 % (no condensation)                                                                                                                                                                                                                                                                   |
| 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}                                                                                                                                                                                                                                                                   |
| Dimensions                         | Maximum diameter:φ167mm × 205 mm (H){φ6-9/16 inches × 8-1/16 inches (H)}<br>Dome radius SR 77.5 mm {SR 3-1/16 inches}<br>(excluding an attachment for the conduit portion and protruding parts)                                                                                                 |
| Mass (approx.)                     | Approx. 3 kg (without attachment)                                                                                                                                                                                                                                                               |
| Finish                             | Main body :<br>Aluminum die cast, i-PRO white<br>Outer fixing screws : Stainless steel (Corrosion-resistant treatment)<br>Dome cover: Polycarbonate resin, Clear (with ClearSight coating)                                                                                                      |
| Other                              | Tamper-resistant enclosure *5                                                                                                                                                                                                                                                                   |

## NOTES

\*1 For information on the operation verification of the web browsers, refer to our support website <Control No.: C0132>.

\*2 Transmission for 4 streams can be individually set.

\*3 When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity) .

\*4 When using with them, WV-QCA501A cable is required.

\*5 Component that has a structure on which the screws that are accessible after installation cannot be screwed or unscrewed using an ordinary screwdriver.

### 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.

### Trademarks and registered trademarks

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## OPTIONAL ACCESSORIES

Select a compatible accessory

[Accessory\\_Selector\\_\(i-pro.com\)](http://Accessory_Selector_(i-pro.com)).



WV-QWL506-W  
4-screw Wall Mount  
Bracket



WV-QWL502-W  
Mount Bracket



WV-QWL501-W  
Mount Bracket



WV-QSR506M1-W  
Mount Bracket



WV-QSR506M-W  
Mount Bracket



WV-QSR506F1-W  
Mount Bracket



WV-QSR506F-W  
Mount Bracket



WV-QSR506-W  
Mount Bracket



WV-QPL500-W  
Mount Bracket



WV-QIB505-W  
Base Bracket



WV-QEM505-W  
Ceiling Mount Bracket



WV-QDC508G  
Dome Cover



WV-QDC508C  
Dome Cover



WV-QDC508CN  
Dome Cover



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-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-QCA501A  
I/O Cable



WV-PM500

Compact microphone  
unit



WJ-PU201P

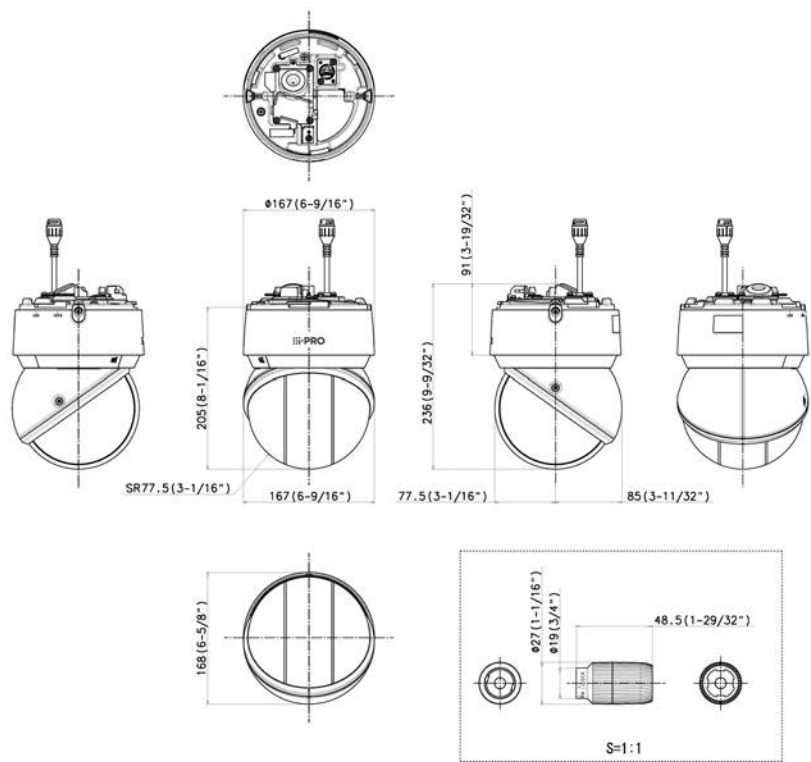
PoE Injector



WJ-PU201/G

PoE Injector

APPEARANCE



| Model number   | Model number    |
|----------------|-----------------|
| WV-S66700-Z3L  | WV-S66700-Z3LN  |
| WV-S66700-Z3LJ | WV-S66700-Z3LNJ |
| WV-S66700-Z3   | WV-S66700-Z3N   |
| WV-S66700-Z3LV | WV-S66700-Z3LV  |
| WV-S66700-Z3V  | WV-S66700-Z3NV  |
| WV-S66600-Z3L  | WV-S66600-Z3LN  |
| WV-S66600-Z3   | WV-S66600-Z3N   |
| WV-S66600-Z3LV | WV-S66600-Z3LV  |
| WV-S66600-Z3V  | WV-S66600-Z3NV  |
| WV-S66300-Z4L  | WV-S66300-Z4LN  |
| WV-S66300-Z4LJ | WV-S66300-Z4LNJ |
| WV-S66300-Z4   | WV-S66300-Z4N   |
| WV-S66300-Z4LV | WV-S66300-Z4LV  |
| WV-S66300-Z4V  | WV-S66300-Z4NV  |
| WV-S66300-Z3L  | WV-S66300-Z3LN  |
| WV-S66300-Z3   | WV-S66300-Z3N   |
| WV-S66300-Z3LV | WV-S66300-Z3LV  |
| WV-S66300-Z3V  | WV-S66300-Z3NV  |

|                | 投影面积/Projected area     |
|----------------|-------------------------|
| 正面图/Front-view | 0.029 (m <sup>2</sup> ) |
| 侧面图/Side-view  | 0.029 (m <sup>2</sup> ) |
| Mass           | Approx. 3 kg [6.62 lbs] |

Unit:mm

