# WV-X22500-V3L

5MP Indoor Dome Network Camera with AI engine

## X-series dome camera with powerful cutting edge AI

- 5MP Indoor Dome camera
- Up to 9 Edge AI analytic apps
- Compatible with AI On-site learning app
- Enables AI image analysis on non-AI cameras (with AI Processing Relay app)
- IK10 certified
- Built-in FIPS 140-2 Level 3 Compliant SecureElement (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant

Learn More

# SPECIFICATIONS

| Camera | |
|---|---|
| Image Sensor | Approx. 1/2.8 type CMOS image sensor |
| Scanning Area | 5.12 mm (H) × 3.84 mm (V) {3/16 inches (H) × 5/32 inches (V)} |
| Minimum Illumination | Color :<br>0.03 lx (30IRE, F1.3, 1/30s, AGC:11)*<br>0.04 lx (50IRE, F1.3, 1/30s, AGC:11)<br>0.003 lx (50IRE, F1.3, 16/30s, AGC:11)*<br><br>BW :<br>0 lx (50IRE, F1.3, 1/30s, AGC:11, IR LED: On)<br>0.02 lx (50IRE, F1.3, 1/30s, AGC:11)<br>0.002 lx (50IRE, F1.3, 16/30s, AGC:11)*<br>*Converted value |
| White Balance | ATW1/ ATW2/ AWC |
| Shutter Speed | [60 fps mode]<br>1/60 Fix to 1/10000 Fix<br>[30 fps/ 15 fps mode]<br>1/30 Fix to 1/10000 Fix<br>[50 fps mode]<br>1/50 Fix to 1/10000 Fix<br>[25 fps/ 12.5 fps mode]<br>1/25 Fix to 1/10000 Fix |
| Maximum Shutter | [60 fps mode]<br>Max. 1/4000 s to Max. 16/30 s<br>[30 fps/ 15 fps mode]<br>Max. 1/4000 s to Max. 16/30 s<br>[50 fps mode]<br>Max. 1/4000 s to Max. 16/25 s<br>[25 fps/ 12.5 fps mode]<br>Max. 1/4000 s to Max. 16/25 s |
| Intelligent Auto | On/Off |
| Super Dynamic | On/Off (Range : 0 to 31) |
| Dynamic Range | Max. 132 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 (Range : 0 to 31)<br>*only when Super Dynamic/ Intelligent Auto: Off |
| Fog Compensation | On/Off (Range : 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)/<br>Auto1(IR Light Off)/ Auto2(IR Light On)/ Auto3(SCC) |
| IR Illumination | High/ Middle/ Low/ Off<br>Maximum irradiation distance:<br>   70 m {Approx. 230 ft} (30IRE)*<br>   50 m {Approx. 164 ft} (50IRE)<br>* Converted value |
| 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 area available |

| | |
|---|---|
| Audio Detection | On/ Off |
| AI Sound Classification | Selectable from Gunshot, Yell, Vehicle horn, Glass break |
| AI Anaytics | AI Video Motion Detection, AI Privacy Guard, AI Face Detection, AI People Detection, AI Vehicle Detection, AI Non mask Detection (prior to V3.30), AI Occupancy Detection, AI Scene Change Detection, AI On-site Learning, Ai Processing Relay<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, Up to 8 zones available<br>Color: gray/white/blue/green/red/black, or mosaic |
| VIQS | On/Off, Up to 8 zones available |
| Image Rotation | 0° (Off)/ 90°/ 180° (Upside-down)/ 270° |
| Image Stabilizer | On/Off, Available only in the 30 fps mode |
| Camera Title (OSD) | On/Off<br>Up to 40 characters, Up to 2 lines (alphanumeric characters, marks) |

## Lens

| | |
|---|---|
| Optical Zoom | 3.1x (Motorized zoom / Motorized focus) |
| Extra Zoom | max 12.4x (3.1x - 12.4x when resolution is 640x360) |
| Digital (electronic) Zoom | - |
| Focal Length | 2.9 mm – 9 mm<br>{1/8 inches – 11/32 inches} |
| Angular Field of View | [16:9 mode]<br>Horizontal： 33 ° (TELE) - 105 ° (WIDE)<br>Vertical： 19 ° (TELE) - 56° (WIDE)<br>[4:3 mode]<br>Horizontal： 33 ° (TELE) - 105 ° (WIDE)<br>Vertical： 25 ° (TELE) - 76° (WIDE) |
| Maximum Aperture Ratio | 1:1.3(WIDE) - 1:2.5(TELE) |
| Focus Range | 0.3 m {11-13/16 inches} - ∞ |
| Aperture Range | F1.3 - close |

## DORI

| | |
|---|---|
| Detect (25ppm / 8ppf) | 47.1m {154.7ft} (WIDE) 207.4m {680.5ft} (TELE) |
| Observe (62.5ppm / 19ppf) | 18.9m {61.9ft} (WIDE) 83.0m {272.2ft} (TELE) |
| Recognize (125ppm / 38ppf) | 9.4m {30.9ft} (WIDE) 41.5m {136.1ft} (TELE) |
| Identify (250ppm / 76ppf) | 4.7m {15.5ft} (WIDE) 20.7m {68.1ft} (TELE) |

## System on Chip

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|---|---|
| System on Chip (SoC) | Ambarella CV52 |

## Adjusting Angle

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|---|---|
| Adjusting Angle (Fixed camera) | Horizontal (PAN) angle: -240°to +120°<br>Vertical (TILT) angle: -30°to +85°<br>Azimuth (YAW) angle: ±100° |

## Browser GUI

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|---|---|
| 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 | [16:9 mode (60fps mode)] [16:9 mode (50fps mode)]<br>3072x1728*/ 2560x1440<br>[16:9 mode (30 fps mode)] [16:9 mode (25 fps mode)]<br>3072x1728*/ 2560x1440/ 1920x1080/ 1280x720/ 640x360/ 320x180<br>[4:3 mode (60 fps mode)] [4:3 mode (50 fps mode)]<br>3072x2304*/ 2560x1920<br>[4:3 mode (30 fps mode)] [4:3 mode (25 fps mode)]<br>3072x2304*/ 2560x1920/ 1280x960/ 800x600/ VGA/ 400x300/ QVGA<br><br>*Used by super resolution techniques. |
| H.265/H.264 Transmission Mode/Type *2 | [Transmission Mode]<br>Transmission priority:<br>Constant bit rate/ VBR/ Frame rate/ Best effort<br>[Transmission Type]<br>Unicast port (AUTO)/ Unicast port (MANUAL)/ Multicast |
| JPEG (MJPEG) Image Quality | 10 steps: 0(SUPER FINE) - 9(LOW) |
| Smart Coding | [GOP(Group of pictures) control]<br>Off/ Low (Variable GOP 1s-8s)/Mid (Variable GOP 4s-16s)/ Advanced (Fixed GOP 60 seconds with 1 second Key frame)/ 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]<br>On (High)/ On (Low)/ Off<br>[Smart P-picture control]<br>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, DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ, FTP, SFTP, LLDP, MQTT<br>IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, RTSP, RTP, RTP/RTCP, SMTP, DHCP, DNS, DDNS, NTP, SNMPv1/v2/v3, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ, SRTP, FTP, SFTP, LLDP, MQTT |
| 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, HTTPS,<br>User authentication, digest authentication, Host authentication,<br>IEEE802.1X, System log, Image transmission log, brute-force protection,<br>Alteration Detection, Secure boot, Signed firmware |
| SDXC/SDHC/SD Memory Card (Option) | 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), AndroidTM terminals |
| ONVIF®Profile | G / S / T / M |

| **Alarm** | |
|---|---|
| Alarm Source | 3 terninals input, VMD alarm, SCD 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 |
| 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 IN1<br>(Alarm input 1/ Black & white input/ Auto time adjustment input) (x1)<br>ALARM IN2 (Alarm input 2/ ALARM OUT) (x1)<br>ALARM IN3 (Alarm input 3/ AUX OUT) (x1) |

| Monitor Output | Yes (for adjustment)<br>Pin 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 ClassA, EN55032 ClassA, EN55035 |
| Power Source and Power Consumption | [Power Source]<br>DC12 V *4, PoE+ (IEEE802.3at compliant)<br>[Power Consumption]<br>DC12 V ：1.2 A／ Approx. 14.2 W<br>PoE+ DC 54 V ：260 mA／ Approx. 14.0 W （Class 4 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) |
| Shock Resistance | IK10(IEC 62262) |
| Dimensions | ø129.5 mm × 102.5 mm (H) {ø5-3/32 inches ×4-1/32 inches (H)}<br>Dome radius 41.5 mm {1-5/8 inches} |
| Mass (approx.) | Approx. 820 g {1.9 lbs} |
| Finish | Main body: Aluminum die cast, i-PRO white<br>Dome cover: PC resin, Clear |

# 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) .

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)](https://i-pro.com)

**WV-QWL506-W**
4-screw Wall Mount Bracket

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

**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-QWL500-W**
Mount Bracket

**WV-QPL500-W**
Mount Bracket

**WV-QJB500-W**
Mount Bracket

**WV-QEM100-W**
Mount Bracket

**WV-QCN500-W**
Mount Bracket

**WV-QCL101-W**
Mount Bracket

**WV-QCL100-W**
Mount Bracket

**WV-Q105A**
Mount Bracket

**WV-QDC200C**
Dome Cover

**WV-PM500**
Compact microphone unit

**WV-CR1S**
Dome Cover

# APPEARANCE



Φ129.5(5-3/32")
3(1/8")
53(2-3/32")
102.5(4-1/32")
99.5(3-29/32")
SR41.5(1-5/8")

46 ±0.2(1-13/16")
2×Φ5(3/16")
83.5 ±0.2(3-9/32")

Subject
WV-X22300-V3L
WV-X22500-V3L
WV-X22600-V2L
WV-X22700-V2L

Subject
WV-X22300-V3LJ
WV-X22500-V3LJ
WV-X22700-V2LJ

Mass : Approx. 820 g [1.81 lbs]

Unit:mm