

# WV-X15700-V2L

4K Outdoor Bullet Network Camera with AI engine

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



- 4K Bullet 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)
- IP66, IP67, IK10 certified
- Built-in FIPS 140-2 Level 3 Certified SecureElement (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant



# SPECIFICATIONS

Camera	
Image Sensor	Approx. 1/1.8 type CMOS image sensor
Scanning Area	7.68 mm (H) × 4.32 mm (V) {5/16 inches (H) × 5/32 inches (V)}
Minimum Illumination	Color : 0.04 lx (30IRE, F1.6, 1/30s) Color : 0.06 lx (50IRE, F1.6, 1/30s) BW : 0.03 lx (50IRE, F1.6, 1/30s) BW : 0 lx (50IRE, F1.6, 1/30s with IR LED)
White Balance	ATW1/ ATW2/ AWC
Shutter Speed	[60 fps mode] 1/60 Fix to 1/10000 Fix [30 fps/ 15 fps mode] 1/30 Fix to 1/10000 Fix [50 fps mode] 1/50 Fix to 1/10000 Fix [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 [30 fps/ 15 fps mode] Max. 1/4000 s to Max. 16/30 s [50 fps mode] Max. 1/4000 s to Max. 16/25 s [25 fps/ 12.5 fps mode] 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) *only when Super Dynamic/ Intelligent Auto: Off
Fog Compensation	On/Off (Range : 0 to 8) *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)
IR Illumination	High/ Middle/ Low/ Off Maximum irradiation distance: 70 m {Approx. 230 ft} (30IRE)* 50 m {Approx. 164 ft} (50IRE) * 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 Analytics	AI Video Motion Detection, AI Privacy Guard, AI Face Detection, AI People Detection, AI Vehicle Detection, AI Non mask Detection, AI Occupancy Detection, AI Scene Change Detection, AI On-site Learning, AI Processing Relay For details: <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> 3rd party applications are also available. <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 8 zones available
VIQS	On/Off Up to 8 zones available
Image Rotation	0° (Off) / 90° / 180° (Upside-down) / 270°
Image Stabilizer	On/Off (Built-in gyro sensor) Available only in the 30 fps mode
Camera Title (OSD)	On/Off Up to 40 characters, Up to 2 lines (alphanumeric characters, marks)

Lens	
Optical Zoom	2.0x
Extra Zoom	max 12.0x (2.0x - 12.0x when resolution is 640x360)
Digital (electronic) Zoom	-
Focal Length	4.3 mm – 8.6 mm {5/32 inches – 11/32 inches}
Angular Field of View	[16:9 mode] Horizontal : 53° (TELE) - 104° (WIDE) Vertical : 30° (TELE) - 56° (WIDE)
Maximum Aperture Ratio	1:1.5(WIDE) - 1:2.4(TELE)
Focus Range	1.0 m {39-3/8 inches} - ∞
Aperture Range	F1.5 - close

DORI	
Detect (25ppm / 8ppf)	60.0m {196.9ft} (WIDE) 154.0m {505.4ft} (TELE)
Observe (62.5ppm / 19ppf)	24.0m {78.7ft} (WIDE) 61.6m {202.1ft} (TELE)
Recognize (125ppm / 38ppf)	12.0m {39.4ft} (WIDE) 30.8m {101.1ft} (TELE)
Identify (250ppm / 76ppf)	6.0m {19.7ft} (WIDE) 15.4m {50.5ft} (TELE)

System on Chip	
System on Chip (SoC)	Ambarella CV52

Adjusting Angle	
Ceiling mounting	Horizontal : ±180° (PAN rotation part) Vertical : 0° to 100° (TILT rotation part) Yaw : -190° to +100° (YAW rotation part)
Wall mounting	Horizontal : ±100° (TILT rotation part)* Vertical : ±100° (TILT rotation part)* Yaw : -190° to +100° (YAW rotation part) * You can change between horizontal and vertical angles by adjusting the PAN rotation part.

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	[16:9 mode (60 fps mode)] [16:9 mode (50 fps mode)] 3840x2160/ 2560x1440 [16:9 mode (30 fps mode)] [16:9 mode (25 fps mode)] 3840x2160/2560x1440/1920x1080/1280x720/640x360/320x180
H.265/H.264 Transmission Mode/Type *2	[Transmission Mode] Transmission priority: Constant bit rate/ VBR/ Frame rate/ Best effort [Transmission Type] 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 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) *Advanced and Frame rate control are only available with H.265. Smart VIQS On (High)/ On (Low)/ Off Smart P-picture control On/Off
Audio Compression Method *3	G.726 (ADPCM): 16 kbps/ 32 kbps G.711: 64 kbps 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 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), Device Certificate GlobalSign® pre-installed, HTTPS, User authentication, digest authentication, Host authentication, IEEE802.1X, System log, Image transmission log, brute-force protection, Alteration Detection, Secure boot, Signed firmware
SDXC/SDHC/SD Memory Card (Option)	microSDXC memory card: 64 GB, 128 GB, 256 GB, 512 GB microSDHC memory card: 4 GB, 8 GB, 16 GB, 32 GB microSD memory card: 2 GB
Mobile Terminal Compatibility	iPad / iPhone (iOS 8.0 or later), Android™ terminals
ONVIF®Profile	G / S / T / M

Alarm	
Alarm Source	VMD alarm, SCD alarm, Command alarm, Audio detection alarm
Alarm Actions	SDXC/SDHC/SD memory recording, E-mail notification, 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.) Output impedance: Approx. 600 Ω (unbalanced) Output level: -20 dBV
External I/O Terminals *4	ALARM IN1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1) ALARM IN2 (Alarm input 2/ ALARM OUT) (x1) ALARM IN3 (Alarm input 3/ AUX OUT) (x1)

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/Power Consumption	[Power Source] DC12 V *4, PoE+ (IEEE802.3at compliant) [Power Consumption] DC12 V : 1.2 A / Approx. 14.2 W PoE+ DC 54 V : 260 mA / Approx. 14.0 W (Class 4 device)

Ambient Operating Temperature	-40 °C to +55 °C {-40 °F to +131 °F} (Power On range: -30 °C to +55 °C {-22 °F to +131 °F})
Ambient Operating Humidity	10 % to 100 % (no condensation)
Water and Dust Resistance	IP66/ IP67 (IEC 60529), Type 4X (UL50E), NEMA 4X compliant
Shock Resistance	IK10(IEC 62262)
Wind Resistance	Up to 40 m/s {approx. 89 mph}
Dimensions	133 mm (W) x 133 mm (H) x 383 mm (D) {5-1/4 inches(W) x 5-1/4 inches(H) x 15-3/32 inches (D)}
Mass (approx.)	Approx. 2.5 kg {5.6 lbs}
Finish	Main body: Aluminum die cast and resin, i-PRO white Outer fixing screws: Stainless steel (Corrosion-resistant treatment) Front panel: 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) .

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

### 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-QPL500-W  
Mount Bracket



WV-QCN500-W  
Mount Bracket



WV-QCL101-W  
Mount Bracket



WV-QCL100-W  
Mount Bracket



WV-QCA501A  
I/O Cable



WV-QCA500A  
RJ45 Ethernet Cable