

### WV-X66300-Z3S

2MP Outdoor 32x PTZ Network Camera with AI engine

## Rapid PTZ camera with AI engine



- 2MP 32x PTZ camera
- Innovative New Form Factor PTZ
- Up to 2 Edge AI analytic apps
- Al auto tracking
- High speed Pan/Tilt drive (Pan: 700deg./s, Tilt: 500deg./s)
- Heavy salt damage resistance specifications (ISO 14993 compliant)
- IP66, IK10 certified
- Built-in FIPS 140-2 Level 3 Certified SecureElement (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant

Precautions for heavy salt damage resistance





















Optical zoom

# **SPECIFICATIONS**

Image Sensor	Approx. 1/2.8 type CMOS image sensor
Scanning Area	5.57 mm (H) × 3.13 mm (V) {7/32 inches (H) × 1/8 inches (V)}
Minimum Illumination	Color: 0.011 lx (30IRE, F1.6, 1/30s) Color: 0.015 lx (50IRE, F1.6, 1/30s) BW: 0.006lx (50IRE, F1.6, 1/30s)
White Balance	ATW1 / ATW2 / AWC
Shutter Speed	[60fps mode] 1/60 Fix to 1/10000 Fix [50fps mode] 1/50 Fix to 1/10000 Fix
Maximum shutter	60 fps/30 fps/15 fps mode: Max.1/4000s to Max.16/30s 50 fps/25 fps/12.5 fps mode: Max.1/4000s to Max.16/25s
Intelligent Auto	On / Off
Super Dynamic	On / Off, 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 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 (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(Normal)/Auto2(IR Light)/Auto3(SCC)
IR LED Light	-
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
Al Sound Classification	Gunshot, Yell, Vehicle horn, Glass break
Al Analytics	Al Video Motion Detection, Al Face Detection, Al People Detection, Al Vehicle Detection, Al Non mask Detection, Al Occupancy Detection, Al Scene Change Detection
	For details: https://i-pro.com/products_and_solutions/en/surveillance/products/analytics-software 3rd party applications are also available. https://i-pro.com/products_and_solutions/en/surveillance/solutions/edge-ai-platform/application-lis
Privacy Zone	On / Off, Up to 32 zones available
viQs	On / Off, Up to 8 zones available
lmage Stabilizer	On / Off (Built-in gyro sensor)
Camera Title (OSD)	On / Off, Up to 40 characters (alphanumeric characters, marks)

32x (Motorized zoom / Motorized Focus)

Extra zoom	Max.48x (/2)v 48v when recolution is 1280v720)
Focal length	(32x-48x when resolution is 1280x720)  4.25 - 136 mm {5/32 inches - 5-11/32 inches}
Angular Field of View	[16 : 9 mode] Horizontal : 2.4° (TELE) – 65° (WIDE), Vertical : 1.4° (TELE) – 39° (WIDE) (TBD)
	[ 4 : 3 mode] Horizontal : 1.9° (TELE) – 51° (WIDE), Vertical : 1.4° (TELE) – 39° (WIDE) (TBD)
Maximum Aperture Ratio	1:1.6 (WIDE) -1:4.4 (TELE)
Focus range	3.0 m {118-1/8 inches} -∞
Aperture range	F1.6 - close
DORI	
Detect (25ppm / 8ppf)	Wide: 60.3 m / 197.8 ft, Tele: 1833.2 m / 6014.4 ft
Observe (62.5ppm / 19ppf)	Wide: 24.1 m / 79.1 ft , Tele: 733.3 m / 2405.8 ft
Recognize (125ppm / 38ppf)	Wide: 12.1 m / 39.6 ft, Tele: 366.6 m / 1202.9 ft
Identify (250ppm / 76ppf)	Wide: 6.0 m / 19.8 ft, Tele: 183.3 m / 601.4 ft
System on Chip (SoC)	
System on Chip (SoC)	Ambarella CV25m
Adjusting Angle	Horizontal : 360° Endless Panning, TILT : -20° to +90°, Yaw : 0°
Adjusting Angle	HOHZUHTAL . 300 Engless Pallitting, TLLL20 to +90 , Yaw . 0
Pan /tilt	
Panning Range	360° Endless Panning
Panning Speed	Manual: Approx. 0.065°/s – 150°/s, Preset: Up to approx. 700°/s
Tilting Range	Operational -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 (60fps mode)], [16:9 mode (30fps mode)], [16:9 mode (50fps mode)], [16:9 mode (25fps mode)] 1920x1080, 1280x720, 640x360, 320x180 [4:3 mode (30 fps mode)], [4:3 mode (25 fps mode)] 1280x960, VGA, QVGA [4:3 mode (15 fps mode)], [4:3 mode (12.5 fps mode)] 2048x1536*, 1280x960, VGA, QVGA *Used bu super resolution techniques
H.265/H.264 Transmission Mode/Type *2	[Transmission Mode] Constant bit rate / VBR / Frame rate / Best effort [Transmission Type] Unicast port (AUTO) / Unicast port (MANUAL) / Multicast
JPEG	[Image Quality] 10 steps
Smart Coding	GOP (Group of pictures) control: Off/ Low (Variable GOP 1s-8s)/ Mid (Variable GOP 4s-16s)/ Advanced(Fixed GOP 60s w/1s 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*5 : 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 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, 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 GlobalSign® pre-installed, HTTPS, User authentication, Digest authentication, Host authentication, IEEE802.1X, System log, Image transmission log, Brute-force protection, Alteration detection
SDXC/SDHC/SD Memory Card (Option)	H.265 / H.264 recording:  Manual REC / Alarm REC (Pre/Post) / Schedule REC / Backup upon network failure  JPEG recording:  Manual REC / Alarm REC (Pre/Post) / Backup upon network failure  Compatible SDXC/SDHC/SD Memory Card:  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 / 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, HTTP alarm notification Indication on browser, TCP alarm notification output
Input/Output	
Audio Input *4	ø3.5 mm stereo mini jack Recommended applicable microphone: Plug-in power type (Sensitivity of microphone:-51dB to -38dB (0 dB=1 V/Pa, 1 kHz)) Input impedance: Approx. 2 k $\Omega$ (unbalanced) Supply voltage: 4.0V±0.5V For line input : Input level : Approx. –10 dBV
Audio Output *4	ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. $600\Omega$ (unbalanced) Output level : -20 dBV
External I/O Terminals *4	ALARM IN 1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1)
	ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1), ALARM IN 3 (Alarm input 3/ AUX OUT) (x1)
General	ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1), ALARM IN 3 (Alarm input 3/ AUX OUT) (x1)
	ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1), ALARM IN 3 (Alarm input 3/ AUX OUT) (x1)  UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1
Safety	
Safety	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1
Safety EMC	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  FCC (Part15 ClassA), ICES-003 Issue 7 ClassA, EN55032 ClassA, EN55035
Safety EMC Other Standard Power Source and Power Consumption	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  FCC (Part15 ClassA), ICES-003 Issue 7 ClassA, EN55032 ClassA, EN55035  NEMA-TS2  PoE++ (IEEE802.3bt),
Safety  EMC  Other Standard  Power Source and Power Consumption  Ambient Operating Temperature	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  FCC (Part15 ClassA), ICES-003 Issue 7 ClassA, EN55032 ClassA, EN55035  NEMA-TS2  PoE++ (IEEE802.3bt), PoE++ DC54V: 700mA/Approx.37.8W (Class 6 device)  -50 °C to +60 °C * (-58 °F to +140 °F) (PoE++) (Power On range : -30 °C to +60 °C {-22 °F to +140 °F}) (TBD)  Maximum temperature according to NEMA TS 2 (2.2.7) : 74°C (165°F)  * When using with the IR LED light constantly lit, the upper limit of the operating temperature range is
Safety  EMC  Other Standard  Power Source and Power Consumption  Ambient Operating Temperature  Ambient Operating Humidity	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  FCC (Part15 ClassA), ICES-003 Issue 7 ClassA, EN55032 ClassA, EN55035  NEMA-TS2  PoE++ (IEEE802.3bt), PoE++ DC54V: 700mA/Approx.37.8W (Class 6 device)  -50 °C to +60 °C * (-58 °F to +140 °F) (PoE++) (Power On range: -30 °C to +60 °C {-22 °F to +140 °F}) (TBD) Maximum temperature according to NEMA TS 2 (2.2.7): 74°C (165°F)  * When using with the IR LED light constantly lit, the upper limit of the operating temperature range is +50°C {+122 °F}.
Safety EMC Other Standard	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1  FCC (Part15 ClassA), ICES-003 Issue 7 ClassA, EN55032 ClassA, EN55035  NEMA-TS2  PoE++ (IEEE802.3bt), PoE++ DC54V: 700mA/Approx.37.8W (Class 6 device)  -50 °C to +60 °C * (-58 °F to +140 °F) (PoE++) (Power On range : -30 °C to +60 °C {-22 °F to +140 °F}) (TBD)  Maximum temperature according to NEMA TS 2 (2.2.7) : 74 °C (165 °F)  * When using with the IR LED light constantly lit, the upper limit of the operating temperature range is +50 °C {+122 °F}.  10 to 100 % (no condensation)

Dimensions	Maximum diameter: $\phi$ 167mm × 205 mm (H) { $\phi$ 6-9/16 inches × 8-1/16 inches (H) } Dome radius SR 77.5 mm {SR 3-1/16 inches} (excluding an attachment for the conduit portion and protruding parts)
Mass (approx.)	Approx. 3 kg (without attachment)
Finish	Main body: Aluminum die cast (Heavy-salt damage resistance coating), i-PRO white Outer fixing screws: Stainless steel (Corrosion-resistant treatment) Dome cover: Polycarbonate resin, Clear
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

- iPad and iPhone are trademarks of Apple Inc., registered in the U.S. and other countries. Android is a trademark of Google LLC.
- ONVIF is a trademark of ONVIF, Inc.
- All other trademarks identified herein are the property of their respective owners

©i-PRO Co., Ltd All rights reserved / July 2023



### **OPTIONAL ACCESSORIES**

### Select a compatible accessory

Accessory Selector (i-pro.com)



WV-QWL501S-W Wall Mount Bracket



WV-QSR506S-W Mount Bracket



WV-QCL501S-W Ceiling 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 for surveillance cameras



### **APPEARANCE**

