i-PRO

WV-S4556LMA

5MP Sensor IR In-vehicle 360 Fisheye Network Camera with AI engine

Edge AI 360-degree fisheye camera for video surveillance and business intelligence

- 5MP Outdoor 360-degree fisheye camera
- Up to 3 Edge AI analytic apps
- Built-in IR-LED(14m, 45ft)
- IP66, IK10 certified
- Built-in FIPS 140-2 Level 3 Compliant SecureElement (EdgeLock® SE050F NXP® Semiconductors)
- NDAA Compliant

Onvif® | GMST | AI | Ambarella AI envisioned™ | H.265 H.264 JPEG | iA | IR LED | IP66 standard | Vandal Resistant

SPECIFICATIONS

Camera	
Image Sensor	Approx. 1/3 type 5MP CMOS image sensor
Minimum Illumination	Color : 0.11 lx (30IRE, F2.4, 1/30s, AGC:11)* 0.15 lx (50IRE, F2.4, 1/30s, AGC:11) 0.01 lx (50IRE, F2.4, 16/30s, AGC:11)* BW : 0 lx (50IRE, F2.4, 1/30s, AGC:11, IR LED: On) 0.02 lx (50IRE, F2.4, 1/30s, AGC:11) 0.0013 lx (50IRE, F2.4, 16/30s, AGC:11)* *Converted value
Intelligent Auto	On / Off
Maximum Shutter	max. 16/30s to Max. 1/10000s
Wide Dynamic Range	On / Off, The level can be set in the range of 0 to 31.
Dynamic Range	Max.120 dB (Super Dynamic : On, level : 31)
Image Settings	Gain (AGC), White balance
Image Compensation	Adaptive black stretch, Back light compensation (BLC), Fog compensation, High light compensation (HLC), Digital noise reduction
Color/BW (ICR)	Off / On (IR Light Off) / On (IR Light On) / Auto1 (IR Light Off) / Auto2 (IR Light On) / Auto3 (SCC)
IR LED Light	High* / Middle / Low / Off *Maximum irradiation distance : 14 m{Approx. 45 ft}(30IRE), 10 m {Approx. 33 ft} (Mounting height : Approx. 3 m, Peripheral intensity control : On)
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	AI Sound Classification
AI Analytics	AI-VMD/AI People Counting for 360-degree fisheye camera, AI Privacy Guard for 360-degree fisheye camera, AI Non mask Detection (prior to V2.70) , 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-list
Privacy Zone	On / Off, Up to 8 zones available
Camera Title (OSD)	On / Off, Up to 20 characters (alphanumeric characters, marks)
Fixing angle adjustment	-5°, 0°, +5°

Lens	
Zoom Ratio	1x
Digital (Electronic) Zoom	Choose from 3 levels of x1, x2, x4
Focal Length	0.84 mm {1/32 inches}
Maximum Aperture Ratio	1:2.4

Focus Range	0.3 m {11-13/16 inches} - ∞
Angular Field of View	Horizontal : 186°, Vertical : 186°

Distance to the object in the center of the image	Detect (25 ppm / 8 ppf) : 20.7 m / 68.0 ft , Observe (62.5 ppm / 19 ppf) : 8.3 m / 27.2 ft Recognize (125 ppm / 38 ppf) : 4.1m / 13.6ft , Identify (250 ppm / 76 ppf) : 2.1m / 6.8ft
Coverage radius when mounted at a height of 3 m (10 ft)	Detect (25 ppm / 8 ppf) : 38.0m / 124.6ft, Observe (62.5 ppm / 19 ppf) : 13.2m / 43.3ft Recognize (125 ppm / 38 ppf) : 4.3 m / 14.1 ft , Identify (250 ppm / 76 ppf) : —

System on Chip (SoC)	Ambarella CV22

Camera Control	Brightness, AUX On / Off
Audio	Mic (Line) Input : On / Off, Volume adjustment : Low / Middle / High Audio Output : On / Off, Volume adjustment : Low / Middle / High
GUI / Setup Menu Language	English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese

Network IF	10Base-T / 100Base-TX, M12 connector
Resolution <Ceiling> <Wall>	•Fisheye mode (max. 30 fps/25 fps) : 2192×2192 / 1280×1280 / 640×640 / 320×320 •Quad PTZ mode (max. 30 fps/25 fps), Single PTZ mode (max. 30 fps/25 fps) 1600×1200 / 1280×960 / 800×600 / VGA / QVGA
Resolution <Ceiling>	•Double Panorama mode (max. 30 fps/25 fps) 1920×1080 / 1280×720 / 640×360 / 320×180 •Fisheye + Double Panorama mode (max. 30 fps/25 fps) (Fisheye) 2192×2192 / 1280×1280 / 640×640 / 320×320 (Double Panorama) 1280×720 / 640×360 / 320×180 •Fisheye + Quad PTZ mode (max. 30 fps/25 fps) (Fisheye) 2192×2192 / 1280×1280 / 640×640 / 320×320 (Quad PTZ) 1280×960 / 800×600 / VGA / QVGA •Quad streams mode (Single PTZ (Quad streams)) 1280×960 / 800×600 / VGA / QVGA (max. 30 fps/25 fps) (Quad PTZ) 1600×1200 / 1280×960 / 800×600 / VGA / QVGA (max. 5 fps)
Resolution <Wall>	•Panorama mode (max. 30 fps/25 fps) : 1920×1080 / 1280×720 / 640×360 / 320×180 •Fisheye + Panorama mode (max. 30 fps/25 fps) (Fisheye) 2192×2192 / 1280×1280 / 640×640 / 320×320 (Panorama) 1280×720 / 640×360 / 320×180
H.265/H.264	[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 : On (Frame rate control)* / On (Advanced)* / On (Mid) / On (Low) / Off *On (Frame rate control) and On (Advanced) are only available with H.265. Auto VIQS : On / Off
Audio Compression	G.726 (ADPCM) : 16 kbps / 32 kbps, G.711: 64 kbps, AAC-LC : 64 kbps / 96 kbps / 128 kbps
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, MQTT, LLDP 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, MQTT, LLDP
Maximum concurrent access number	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, Signed Firmware
SDXC/SDHC/SD Memory Card (Option)	H.265 / H.264 recording : Manual REC / Alarm REC (Pre/Post) / Schedule REC JPEG recording : Manual REC / Alarm REC (Pre/Post) Compatible SDXC/SDHC/SD card : 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64 GB**, 128 GB**, 256 GB**, 512GB**model *SDHC card, ** SDXC card (except miniSD card and microSD card)

Mobile Terminal Compatibility	iPad / iPhone, AndroidTM terminals
ONVIF Profile	G / M / S / T

Alarm	
Alarm Source	3 terminals input, VMD, Command 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	ø3.5 mm stereo mini jack, Recommended applicable microphone : Plug-in power type (Sensitivity of microphone : −48 dB ±3 dB (0 dB=1 V / Pa,1 kHz)) Input impedance : Approx. 2 kΩ (unbalanced) Supply voltage : 2.5 V ±0.5 V
Audio Output	ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. 600 Ω (unbalanced) Output level : −20 dBV
External I/O Terminals	ALARM IN 1 (Black & white input, Auto time adjustment) (x1), ALARM IN 2 (ALARM OUT) (x1), ALARM IN 3 (AUX OUT) (x1)

General	
Safety	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1
EMC	FCC (Part15 ClassA), ICES003 ClassA, EN55032 ClassB, EN55035 ECE-R10, EN50498 compliant, EN50121
Power Source and Power Consumption	DC power supply : DC12 V 1.03 A, Approx. 12.4 W PoE (IEEE802.3af compliant, Alternative A) Device : DC48 V 260 mA, Approx. 12.5 W (Class 0 device)
Ambient Operating Temperature	IR LED : On -40 °C to +50 °C (-40 °F to 122 °F) / Off -40 °C to +60 °C (-40 °F to 140 °F)
Ambient Operating Humidity	10 to 100 % (no condensation)
Anti-Condensation System	Rosahl element
Water and Dust Resistance	IP66(IEC60529), Type 4X(UL50), NEMA 4X compliant
Shock Resistance	50J (IEC 60068-2-75 compliant), IK10 (IEC 62262)
Wind Resistance	Up to 40 m/s {approx. 89 mph}
Railway Application	EN45545 compliant, EN50155-TX
Dimensions	When using the attachment plate : ø154 mm × 60.3 mm (H) {ø6-1/16 inches × 2-3/8 inches (H)} , Dome radius 35 mm {1-3/8 inches}
Mass (Approx.)	When using the attachment plate : Approx. 870 g {1.92 lbs}
Finish	Main body : Aluminum die cast, i-PRO white Outer fixing screws : Stainless steel / Dome section : Polycarbonate resin, Clear

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)

WV-PM500	**WV-QJB501-W**	**WV-QJB504-W**	**WV-QDC507C**	**WV-SDA512G**	**WV-SDA256G**
Compact microphone unit	Base Bracket	Base Bracket	Dome Cover	i-PRO SD Memory Card	i-PRO SD Memory Card

WV-SDA128G	**WV-SDA064G**	**WV-SDA032G**
i-PRO SD Memory Card	i-PRO SD Memory Card	i-PRO SD Memory Card

APPEARANCE

ϕ154(6-1/16")

59.3(2-11/32")
41.6(1-5/8")

SR35(1-3/8")

60.3(2-3/8")
1(1/32")

46 ±0.2(1-13/16")

4xϕ4.8(3/16")

83.5 ±0.2(3-9/32")

With attachment plate

Cable Length from outline : Approx. 240 mm (9-7/16 inches)

Cable Length from outline : Approx. 230 mm (9-1/16 inches)

側面図/Side-view	投影面積/Projected area
	0.007(m²)

Mass : Approx. 870 g (1.92 lbs)
(When using the attachment plate)

Unit:mm