

# WV-S4576LM

12MP Sensor IR In-vehicle 360 Fisheye Network Camera with AI engine

## Edge AI 360-degree fisheye camera that provides video surveillance without any blind spots and business intelligence.

The new S-series fisheye camera is a new-generation camera equipped with an AI processor that realizes edge AI processing. With a high-performance fisheye lens and our own video compression technology, it is possible to clearly shoot 360 degrees in all directions up to the periphery of the screen with a single camera.

The camera is equipped with an AI processor, and contribute to solve various problems by installing an AI application according to the purpose.

It is possible to visualize the number of people and the congestion status with a dashboard that can be customized according to the customer's operation style, and use it for business intelligence purposes.



- 12MP Sensor
- 2992x2992 pixel fisheye images up to 30fps
- Intelligent Auto (with AI Engine)
- Smart Coding (with AI Engine)
- ABF (Auto Back Focus)
- IP66, IK10, 50J compliant, Anti-Condensation System
- Built-in IR LED
- NDAA Compliant



# SPECIFICATIONS

Camera	
Image Sensor	Approx. 1/2 type 12MP CMOS image sensor
Minimum Illumination	Color : 0.3 lx, BW : 0.04 lx (F1.9, Maximum shutter : Off (1/30 s), AGC : 11) BW : 0 lx (F1.9, Maximum shutter : Off (1/30 s), AGC : 11, when the IR LED is lit) Color : 0.02 lx, BW : 0.003 lx (F1.9, Maximum shutter : max. 16/30s, AGC : 11)
Intelligent Auto	On / Off
Maximum Shutter	max. 16/30s to Max. 1/10000s
Super Dynamic	On / Off, The level can be set in the range of 0 to 31.
Dynamic Range	Max.84 dB (Wide Dynamic Range : 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	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 For details <a href="https://i-pro.com/global/en/surveillance/products/i-pro-ai-application">https://i-pro.com/global/en/surveillance/products/i-pro-ai-application</a> 3rd party applications are alsoavailable. <a href="https://i-pro.com/global/en/surveillance/i-pro-application-platform/application-list">https://i-pro.com/global/en/surveillance/i-pro-application-platform/application-list</a>
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	1.4 mm {1/16 inches}
Maximum Aperture Ratio	1:1.9
Focus Range	0.5 m {19-11/16 inches} - ∞
Angular Field of View	Horizontal : 183° Vertical : 183°
DORI	
Distance to the object in the center of the image	Detect (25 ppm / 8 ppf) : 29.9m / 98.2ft , Observe (62.5 ppm / 19 ppf) : 12.0m / 39.3ft Recognize (125 ppm / 38 ppf) : 6.0m / 19.6ft , Identify (250 ppm / 76 ppf) : 3.0m / 9.8ft
Coverage radius when mounted at a height of 3 m (10 ft)	Detect (25 ppm / 8 ppf) : 56.1m /184.2ft , Observe (62.5 ppm / 19 ppf) : 20.6m / 67.6ft Recognize (125 ppm / 38 ppf) : 8.4m / 27.6ft , Identify (250 ppm / 76 ppf) : 0.3m / 0.9ft

Browser GUI	
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	
Network IF	10Base-T / 100Base-TX, RJ45 connector
Resolution <Ceiling> <Wall>	<ul style="list-style-type: none"> <li>•Fisheye mode (max. 30 fps/25 fps) 2992×2992 / 2192×2192 / 1280×1280 / 640×640 / 320×320</li> <li>•Quad PTZ mode (max. 15 fps/12.5 fps), Single PTZ mode (max. 15 fps/12.5 fps) 2560×1920 / 2048×1536 / 1600×1200 / 1280×960 / 800×600 / VGA / QVGA</li> </ul>
Resolution <Ceiling>	<ul style="list-style-type: none"> <li>•Double Panorama mode (max. 15 fps/12.5 fps) 2560×1440 / 1920×1080 / 1280×720 / 640×360 / 320×180</li> <li>•Fisheye + Double Panorama mode (max. 15 fps/12.5 fps) (Fisheye) 2992×2992 / 2192×2192 / 1280×1280 / 640×640 / 320×320 (Double Panorama) 1280×720 / 640×360 / 320×180</li> <li>•Fisheye + Quad PTZ mode (max. 15 fps/12.5 fps) (Fisheye) 2992×2992 / 2192×2192 / 1280×1280 / 640×640 / 320×320 (Quad PTZ) 1280×960 / 800×600 / VGA / QVGA</li> <li>•Quad streams mode (Single PTZ (Quad streams)) 1280×960 / 800×600 / VGA / QVGA (max. 15 fps/12.5 fps) (Quad PTZ) 2560×1920 / 2048×1536 / 1600×1200 / 1280×960 / 800×600 / VGA / QVGA (max. 5 fps)</li> </ul>
Resolution <Wall>	<ul style="list-style-type: none"> <li>•Panorama mode (max. 15 fps/12.5 fps) 2560×1440 / 1920×1080 / 1280×720 / 640×360 / 320×180</li> <li>•Fisheye + Panorama mode (max. 15 fps/12.5 fps) (Fisheye) 2992×2992 / 2192×2192 / 1280×1280 / 640×640 / 320×320 (Panorama) 1280×720 / 640×360 / 320×180</li> </ul>
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, SNMP v1/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, SNMP v1/v2/v3, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ, SRTP
Maximum concurrent access number	Up to 14 users (Depends on network conditions)
Secure	Device Certificate GlobalSign® pre-installed, User authentication, Host authentication, HTTPS, 802.1X Support, Data encryption
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, Android™ 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	

Monitor output (for adjustment)	VBS : 1.0 V [p-p] / 75 Ω, composite, ø3.5 mm mini jack An NTSC or PAL signal can be outputted from camera
Audio Input	[For microphone] 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 [For line] Input level : Approx. -10 dBV
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 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), ICES003 ClassA, EN55032 ClassB, EN55024, EN55035 ECE-R10, EN50498 compliant, EN50121
Power Source and Power Consumption	DC power supply : DC 12 V 1.1 A/Approx. 13.2 W PoE (IEEE802.3af compliant, Alternative A) Device : DC 48 V 270 mA/Approx. 12.95 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 only : 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 only : Approx. 880 g {1.94 lbs}
Finish	Main body : Aluminum die cast, i-PRO white / Outer fixing screws : Stainless steel (Corrosion-resistant treatment) / 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 \(i-pro.com\)](http://i-pro.com).



WV-QWL500-W  
Mount Bracket



WV-QJB500-W  
Mount Bracket



WV-QSR501-W  
Mount Bracket



WV-QWL501-W  
Mount Bracket



WV-QCL501-W  
Mount Bracket



WV-Q105A  
Mount Bracket



WV-QJB501-W  
Base Bracket

# APPEARANCE

