

# WV-S4556LM

5MP 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.



- 2192x2192 pixel fisheye images up to 30fps
- Intelligent Auto (with AI Engine)
- Super Dynamic 120dB
- Smart Coding (with AI Engine)
- IP66, IK10, 50J compliant, Anti-Condensation System
- Built-in IR LED
- NDAA Compliant

# SPECIFICATIONS

| Camera                       |   |
|------------------------------|---|
| Image Sensor                 | Approx. 1/3 type 5MP CMOS image sensor  |
| Minimum Illumination         | Color : 0.15 lx, BW : 0.02 lx (F2.4, Maximum shutter : Off (1/30 s), AGC : 11)<br>BW : 0 lx (F2.4, Maximum shutter : Off (1/30 s), AGC : 11, when the IR LED is lit)<br>Color : 0.01 lx, BW : 0.0013 lx (F2.4, Maximum shutter : max. 16/30s, AGC : 11)   |
| 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<br>(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<br>*Maximum irradiation distance : 14 m{Approx. 45 ft}(30IRE), 10 m {Approx. 33 ft}<br>(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 Video Motion Detection, AI Privacy Guard, AI Face Detection, AI People Detection, AI Vehicle Detection, AI Non mask Detection, AI Occupancy Detection<br>For details<br><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><br>3rd party applications are also available.<br><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                 | 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°<br>Vertical : 186°  |

| DORI  |   |
|---|---|
| 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<br>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<br>Recognize (125 ppm / 38 ppf) : 4.3 m / 14.1 ft , Identify (250 ppm / 76 ppf) : —  |
| Browser GUI   |   |
| Camera Control  | Brightness, AUX On / Off  |
| Audio   | Mic (Line) Input : On / Off, Volume adjustment : Low / Middle / High<br>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) : 2192×2192 / 1280×1280 / 640×640 / 320×320</li> <li>•Quad PTZ mode (max. 30 fps/25 fps), Single PTZ mode (max. 30 fps/25 fps) 1600×1200 / 1280×960 / 800×600 / VGA / QVGA</li> </ul>   |
| Resolution <Ceiling>                                    | <ul style="list-style-type: none"> <li>•Double Panorama mode (max. 30 fps/25 fps) 1920×1080 / 1280×720 / 640×360 / 320×180</li> <li>•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</li> <li>•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</li> <li>•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)</li> </ul> |
| Resolution <Wall>                                       | <ul style="list-style-type: none"> <li>•Panorama mode (max. 30 fps/25 fps) : 1920×1080 / 1280×720 / 640×360 / 320×180</li> <li>•Fisheye + Panorama mode (max. 30 fps/25 fps) (Fisheye) 2192×2192 / 1280×1280 / 640×640 / 320×320 (Panorama) 1280×720 / 640×360 / 320×180</li> </ul>   |
| H.265/H.264   | [Transmission Mode]<br>Constant bit rate / VBR / Frame rate / Best effort<br>[Transmission Type]<br>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<br>*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<br>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<br>JPEG recording : Manual REC / Alarm REC (Pre/Post)<br>Compatible SDXC/SDHC/SD card :<br>2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64 GB**, 128 GB**, 256 GB**, 512GB**model<br>*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                       |  |
| 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))<br>Input impedance : Approx. 2 kΩ (unbalanced) Supply voltage : 2.5 V ±0.5 V |
| Audio Output                       | ø3.5 mm stereo mini jack (monaural output)<br>Output impedance : Approx. 600 Ω (unbalanced) Output level : -20 dBV   |
| External I/O Terminals             | ALARM IN 1 (Black & white input, Auto time adjustment) (x1),<br>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, EN55024, EN55035<br>ECE-R10, EN50498 compliant, EN50121   |
| Power Source and Power Consumption | DC power supply : DC12 V 1.03 A, Approx. 12.4 W<br>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<br>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 \(i-pro.com\)](http://i-pro.com).



**PWM485W**  
Wall Mount and Shroud



**WV-QWL500-W**  
Mount Bracket



**WV-QJB500-W**  
Mount Bracket



**WV-QWL501-W**  
Mount Bracket



**WV-QSR501-W**  
Mount Bracket



**PAPM4W**  
Pole Mount Bracket



**PACA4W**  
Corner Mount Adapter  
Bracket



**WV-QCL501-W**  
Mount Bracket



**PS485W**  
Shroud



**WV-QCL101-W**  
Mount Bracket



**WV-Q105A**  
Mount Bracket



**WV-QJB501-W**  
Base Bracket

# APPEARANCE

