

# WV-S41700-F1

12.5MP Sensor AI Indoor Fisheye Camera

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- 12.5MP Sensor AI Indoor Fisheye Camera
  - Up to 3 Edge AI analytic apps
  - FIPS 140-3 Level 3, CC EAL6+ (NXP® EdgeLock® SE052F)
  - NDAA Compliant
-

# SPECIFICATIONS

| Camera                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Image Sensor                 | Approx. 1/1.6 type CMOS image sensor                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Scanning Area                | 7.04 mm (H) × 7.04 mm (V) {9/32 inches (H) × 9/32 inches (V)}                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Minimum Illumination         | Color : 0.08 lx (30IRE, F2.0, 1/30 s, AGC: 11)*<br>0.11 lx (50IRE, F2.0, 1/30 s, AGC: 11)<br>0.007 lx (50IRE, F2.0, 16/30 s, AGC: 11)*<br><br>BW : 0.06 lx (50IRE, F2.0, 1/30 s, AGC: 11)<br>0.004 lx (50IRE, F2.0, 16/30 s, AGC: 11)*<br>* Converted value                                                                                                                                                                                                                                                        |
| Maximum Shutter              | [30 fps mode] Max. 1/10000 s to Max. 16/30 s<br>[25 fps mode] Max. 1/10000 s to Max. 16/25 s                                                                                                                                                                                                                                                                                                                                                                                                                       |
| AI Auto Exposure             | On/Off                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Super Dynamic                | On/Off (Range : 0 to 31)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Dynamic Range                | Max. 120 dB (Super Dynamic: On, Level: 31, 15 fps*)<br>* The frame rate is limited to 15 fps for level 30 or higher.                                                                                                                                                                                                                                                                                                                                                                                               |
| 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/ Auto1(Normal)/ Auto2(IR Light)/ Auto3(SCC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Analytics                    | AI-VMD, AI Privacy Guard,<br><br>For details :<br><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><br>3rd party applications are also available.<br><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> |
| Maximum No. of Applications  | 3 (AI app)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Docker                       | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Privacy Zone                 | On/Off (Up to 8 zones available)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| VIQS                         | On/Off (Up to 8 zones available)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Image Rotation               | 0° (Off)/ 180° (Upside-down)<br>*Except Fisheye mode                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Camera Title (OSD)           | On/ Off<br>Up to 20 characters (alphanumeric characters, marks)                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Lens                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Optical Zoom                 | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Digital (electronic) Zoom    | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Focal Length                 | 1.7 mm {1/15 inches}                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                        |                                    |
|------------------------|------------------------------------|
| Angular Field of View  | Horizontal: 181°<br>Vertical: 181° |
| Adjusting Angle        | -5° to +5 °                        |
| Maximum Aperture Ratio | 01:02.0                            |
| Focus Range            | 0.5 m {19-11/16 inches} - ∞        |
| Aperture Range         | F2.0                               |

## DORI

|                                                         |                                                                                                                                                                                        |
|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Distance to the object in the center of the image       | Detect (25ppm / 8ppf) : 28.9 m {94.8 ft}<br>Observe (62.5ppm / 19ppf) : 11.6 m {37.9 ft}<br>Recognize (125ppm / 38ppf) : 5.8 m {19.0 ft}<br>Identify (250ppm / 76ppf) : 2.9 m {9.5 ft} |
| Coverage radius when mounted at a height of 3 m (10 ft) | Detect (25ppm / 8ppf) : 54.1 m {177.5 ft}<br>Observe (62.5ppm / 19ppf) : 19.8 m {64.9 ft}<br>Recognize (125ppm / 38ppf) : 8.0 m {26.2 ft}<br>Identify (250ppm / 76ppf) : -             |

## System on Chip

|                      |                |
|----------------------|----------------|
| System on Chip (SoC) | Ambarella CV22 |
|----------------------|----------------|

## 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 <Ceiling> <Wall>            | •Fisheye mode (max. 30 fps/25 fps)<br>2992×2992 / 2192×2192 / 1280×1280 / 640×640 / 320×320<br>•Quad PTZ mode (max. 15 fps/12.5 fps), Single PTZ mode (max. 15 fps/12.5 fps)<br>2560×1920*3 / 2048×1536 / 1600×1200 / 1280×960 / 800×600 / VGA / QVGA                                                                                                                                                                                                                                                                                                                                                                                                              |
| Resolution <Ceiling>                   | •Double Panorama mode (max. 15 fps/12.5 fps)<br>2560×1440 / 1920×1080 / 1280×720 / 640×360 / 320×180<br>•Fisheye + Double Panorama mode (max. 15 fps/12.5 fps)<br>(Fisheye) 2992×2992 / 2192×2192 / 1280×1280 / 640×640 / 320×320<br>(Double Panorama) 1280×720 / 640×360 / 320×180<br>•Fisheye + Quad PTZ mode (max. 15 fps/12.5 fps)<br>(Fisheye) 2992×2992 / 2192×2192 / 1280×1280 / 640×640 / 320×320<br>(Quad PTZ) 1280×960 / 800×600 / VGA / QVGA<br>•Quad streams mode<br>(Single PTZ (Quad streams)) 1280×960 / 800×600 / VGA / QVGA (max. 15 fps/12.5 fps)<br>(Quad PTZ) 2560×1920 / 2048×1536 / 1600×1200 / 1280×960 / 800×600 / VGA / QVGA (max. 5 fps) |
| Resolution <Wall>                      | •Panorama mode (max. 15 fps/12.5 fps)<br>2560×1440 / 1920×1080 / 1280×720 / 640×360 / 320×180<br>•Fisheye + Panorama mode (max. 15 fps/12.5 fps)<br>(Fisheye) 2992×2992 / 2192×2192 / 1280×1280 / 640×640 / 320×320<br>(Panorama) 1280×720 / 640×360 / 320×180                                                                                                                                                                                                                                                                                                                                                                                                     |
| H.265/H.264 Transmission Priority/Type | [Transmission priority]<br>Constant bit rate/ VBR/ Frame rate/ Best effort<br>[Transmission type]<br>Unicast port (AUTO)/ Unicast port (MANUAL)/ Multicast                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| No. of Stream                          | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| JPEG (MJPEG)                           | Image Quality:10 steps                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Smart Coding                           | [GOP(Group of pictures) control]<br>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)<br>*Advanced and Frame rate control are only available with H.265.<br>[Auto VIQS]<br>On/ Off                                                                                                                                                                                                                                                                                                                                                |

|                                   |                                                                                                                                                                                                                                                                                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio Compression Method *2       | G.726(ADPCM) : 16 kbps/32 kbps<br>G.711 : 64 kbps<br>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<br>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 (Depending on network conditions)                                                                                                                                                                                                                                                                                            |
| Secure                            | FIPS 140-3 level 3, CC EAL6+ (NXP® EdgeLock® SE052F),<br>Device Certificate GlobalSign® pre-installed, HTTPS,<br>User authentication, digest authentication, Host authentication,<br>IEEE802.1X, System log, Image transmission log, brute-force protection,<br>Alteration Detection, Secure boot, Signed firmware                          |
| SDXC/SDHC/SD Memory Card (Option) | microSDXC memory card: 64 GB, 128 GB, 256 GB, 512 GB<br>microSDHC memory card: 4 GB, 8 GB, 16 GB, 32 GB<br>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, SCD alarm, Command alarm, Audio detection alarm                                                                                                                                    |
| Alarm Actions | SDXC/SDHC/SD memory recording, E-mail notification,<br>HTTP alarm notification Indication on browser, TCP alarm notification output, MQTT alarm notification,<br>FTP/SFTP image transfer, SNMP trap notification |

| Input/Output              |                                                                                                                                                                                                                                                                         |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Built-in Microphone       | Nondirectional electret condenser microphone                                                                                                                                                                                                                            |
| Audio Input *3            | [For microphone]<br>Recommended applicable microphone : Plug-in power type<br>(Sensitivity of microphone: -48 dB±3 dB (0 dB=1 V/Pa, 1 kHz))<br>Input impedance: Approx. 2 kΩ (unbalanced)<br>Supply voltage: 2.5 V ±0.5 V<br>[For line]<br>Input level: Approx. -10 dBV |
| Audio Output *3           | ø3.5 mm stereo mini jack (Audio output is monaural.)<br>Output level: -20 dBV                                                                                                                                                                                           |
| External I/O Terminals *3 | ALARM IN1<br>(Alarm input 1/ Black & white input/ Auto time adjustment input) (x1)<br>ALARM IN2 (Alarm input 2/ ALARM OUT) (x1)<br>ALARM IN3 (Alarm input 3/ AUX OUT) (x1)                                                                                              |
| Monitor Output            | Yes(for adjustment)<br>VBS: 1.0 V [p-p]/75 Ω, composite, Pin jack<br>NTSC or PAL signal can be output from camera<br>(either press the INITIAL SET button quickly (within 1 second) or use software to select NTSC or PAL signal)                                       |

| General                             |                                                                                                                                                                       |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety                              | UL62368-1 3Ed, CAN/CSA C22.2 NO.62368-1-19, IEC62368-1 3Ed.                                                                                                           |
| EMC                                 | FCC Part15 Subpart B, ClassA, SDoC, ICES-003 Issue 7 ClassA, EN55032:2015/A11 ClassA, EN55035:2017/A11                                                                |
| Power Source / Power Consumption *4 | [Power Source]<br>DC12V<br>PoE (IEEE802.3af compliant)<br>[Power Consumption]<br>DC12 V : 600mA / Approx. 7.2W<br>PoE DC 48 V : 160mA / Approx. 7.7W (Class 0 device) |
| Ambient Operating Temperature       | -10 °C to +50 °C {14 °F to +122 °F}                                                                                                                                   |
| Ambient Operating Humidity          | 10 % to 90 % (no condensation)                                                                                                                                        |

|                                |                                                                                                               |
|--------------------------------|---------------------------------------------------------------------------------------------------------------|
| Storage Temperature & Humidity | Storage temperature: -30 °C to +60 °C {-22 °F to +140 °F}<br>Storage humidity: 10 % to 95 % (no condensation) |
| Dimensions                     | ø150mm × 49.5 mm (H) {ø5-29/32 inches × 1-15/16 inches (H)}(TBD)                                              |
| Mass (approx.)                 | Approx. 420g {0.93 lbs}<br>(TBD)                                                                              |
| Finish                         | Main body: ABS resin, i-PRO white                                                                             |

## NOTES

- \*1 For information on the operation verification of the web browsers, refer to our support website <Control No.: C0132>.
- \*2 When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity) .
- \*3 The audio output can be switched to the monitor output. Refer to the “Operating Instructions” on our support website for descriptions of how to switch the output.
- \*4 Refer to our technical information website <Control No.: C0106> for further information about Power source and Power consumption information.

### 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 any third-party products (including applications) 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-QPL500-W  
Mount Bracket



WV-QLR100-W  
Light Rail Mount  
Bracket



WV-QJB507-W  
Mount Bracket



WV-QJB501-W  
Base Bracket



WV-QJB501A-W  
Base Bracket



WV-QJB501A-B  
Base Bracket



WV-QJB500-W  
Mount Bracket



WV-QCN500-W  
Mount Bracket



WV-QCL102-W  
Universal Camera  
Mount Bracket



WV-QCL100-W  
Mount Bracket



WV-Q105A  
Mount Bracket



WV-SDB256G  
i-PRO SD Memory  
Card



WV-SDB128G  
i-PRO SD Memory  
Card



WV-SDB064G  
i-PRO SD Memory  
Card

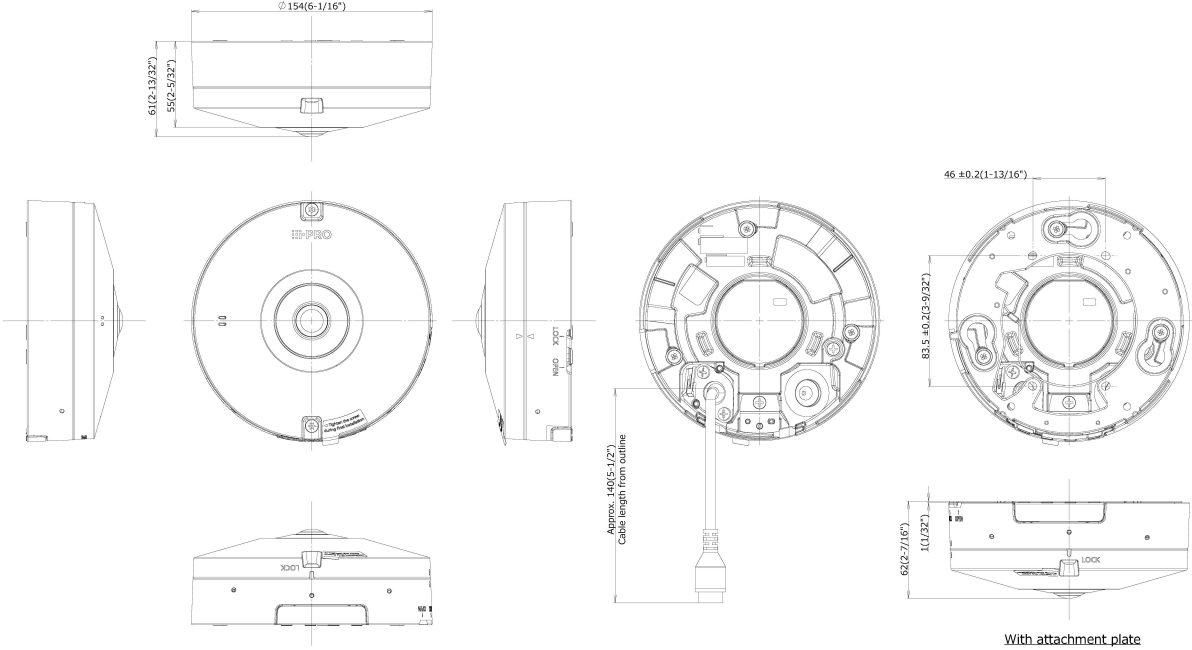


WV-SDB032G  
i-PRO SD Memory  
Card



WV-QDC510C  
Dome Cover

APPEARANCE



Unit:mm

Mass : Approx. 1.35 kg {2.98 lbs} (When using the attachment plate)

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