

## 5MP Outdoor Bullet Network Camera

Designed to equip security professionals with the best possible CCTV footage for evidence, the WV-S1552L captures high-quality 5MP images even in very challenging, dynamic and exposed environments that require reliable hardware. To adjust key camera settings automatically in real time, improved intelligent auto (iA) monitors scene dynamics and motion, and captures clear images while reducing distortion such as motion blur on moving objects.

In order to save bandwidth at 50%\* lower than existing cameras and maintain image quality, the improved Smart Coding technology optimizes video compression through captured scene. \*Compared to Smart Coding OFF with H.265

### Extreme image quality allows evidence to be captured even under challenging conditions

- 5MP image sensor realize wide area surveillance with improved high-quality images
- Auto shutter speed control for moving objects
- Outstanding low-light performance in true color with low noise for nighttime applications
- Built-in IR LED to produce a clear monochrome image in 0 lux conditions with 40 m (131 feet) irradiation distance
- Environmental durability: IP66, IK10

### Extreme bandwidth compression with evolved Smart Coding

- Longer recording and less storage requirements compared to traditional H.265 compression techniques
- Improved video compression technology detects objects such as faces, humans, vehicles and motorcycles / bicycles within the image and compresses the areas without objects in order to reduce transmitted data while maintaining image quality

### Easy installation

- Allows you to connect the network cable to the camera body simply by opening a part of the package, which saves you time and workspace, especially when handling multiple cameras

#### Key Features

- 5-megapixel images up to 30fps
- intelligent Auto
- Color night vision (0.0044 to 0.07 lx)
- H.265 Smart Coding
- FIPS140-2 CAVP compliant
- i-VMD License Bundled
- ONVIF® Profile G / S / T

\*Using encryption module standardized by FIPS publication 140-2

\*ONVIF is a trademark of ONVIF, Inc.

#### Industry examples

- Public safety (City / Highway toll / Parking gate)
- Transportation (Airport / Train / Subway)
- Retail / Bank / Logistics / Education / Hospital / Building



## Specifications

|                                |                                                                                         |                                                                                                                                                                                                                                                                                          |
|--------------------------------|-----------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Camera</b>                  | Image Sensor                                                                            | 1/2.8 type CMOS image sensor                                                                                                                                                                                                                                                             |
|                                | Minimum Illumination                                                                    | Color : 0.07 lx, BW : 0.04 lx<br>(50IRE, F1.3, Maximum shutter : Off (1/30s), AGC : 11)<br>BW : 0 lx<br>(50IRE, F1.3, Maximum shutter : Off (1/30 s), AGC : 11, when the IR LED is lit)<br>Color : 0.0044 lx, BW : 0.003 lx<br>(50IRE, F1.3, Maximum shutter : max. 16/30s, AGC : 11) *1 |
|                                | White Balance                                                                           | ATW1/ATW2/AWC                                                                                                                                                                                                                                                                            |
|                                | Shutter Speed                                                                           | [30fps mode] 1/30 Fix to 1/10000 Fix [25fps mode] 1/25 Fix to 1/10000 Fix                                                                                                                                                                                                                |
|                                | Intelligent Auto                                                                        | On / Off                                                                                                                                                                                                                                                                                 |
|                                | Super Dynamic                                                                           | On / Off, The level can be set in the range of 0 to 31.                                                                                                                                                                                                                                  |
|                                | Dynamic Range                                                                           | Max.132 dB (Super Dynamic : On, Level : 30 or more, 15fps *2)                                                                                                                                                                                                                            |
|                                | 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<br>The level can be set in the range of 0 to 31.<br>(only when Super dynamic / Intelligent Auto : Off)                                                                                                               |
|                                | Fog compensation                                                                        | On / Off, The level can be set in the range of 0 to 8<br>(only when Intelligent auto / auto contrast adjust : Off)                                                                                                                                                                       |
|                                | Maximum gain                                                                            | The level can be set in the range of 0 to 11.                                                                                                                                                                                                                                            |
|                                | Color/BW (ICR)                                                                          | Off / On (IR Light Off) / On (IR Light On) / Auto (IR Light Off) / Auto2 (IR Light On) / Auto3 (SCO)                                                                                                                                                                                     |
|                                | IR LED Light                                                                            | High / Middle / Low / Off, Maximum irradiation distance : 40 m (Approx. 131 ft)                                                                                                                                                                                                          |
|                                | 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 area available                                                                                                                                                                                                                                                               |
|                                | Intelligent VMD (i-VMD)                                                                 | Type 7 *Bundled License                                                                                                                                                                                                                                                                  |
| Privacy Zone                   | On / Off, Up to 8 zones available                                                       |                                                                                                                                                                                                                                                                                          |
| Image rotation <sup>3</sup> *4 | 0 ° (Off) / 90 ° / 180 ° (Upside-down) / 270 °                                          |                                                                                                                                                                                                                                                                                          |
| Camera Title (OSD)             | On / Off, Up to 20 characters (alphanumeric characters, marks)                          |                                                                                                                                                                                                                                                                                          |
| <b>Lens</b>                    | Optical zoom                                                                            | 3.1x (Motorized zoom / Motorized focus)                                                                                                                                                                                                                                                  |
|                                | Extra optical zoom                                                                      | 3.1x - 9.3x (when resolution is 640x360)                                                                                                                                                                                                                                                 |
|                                | Digital (electronic) zoom                                                               | Choose from 3 levels of x1, x2, x4                                                                                                                                                                                                                                                       |
|                                | Focal length                                                                            | 2.9 mm - 9 mm (1/8 inches - 11/32 inches)                                                                                                                                                                                                                                                |
|                                | Maximum Aperture Ratio                                                                  | 1 : 1.3 (WIDE) - 1 : 2.5 (TELE)                                                                                                                                                                                                                                                          |
|                                | Focus range                                                                             | 0.3 m (11-13/16 inches) - ∞                                                                                                                                                                                                                                                              |
|                                | Angular Field of View                                                                   | [16:9 mode] Horizontal: 34° (TELE) - 106° (WIDE), Vertical: 19° (TELE) - 57° (WIDE)<br>[4:3 mode] Horizontal: 34° (TELE) - 106° (WIDE), Vertical: 25° (TELE) - 77° (WIDE)                                                                                                                |
| <b>DORI</b> *5                 | Detect (25ppm / 8ft)                                                                    | Wide: 46.3 m / 151.90 ft, Tele: 200.96 m / 659.32 ft                                                                                                                                                                                                                                     |
|                                | Observe (62.5ppm / 19ft)                                                                | Wide: 18.52 m / 60.76 ft, Tele: 80.38 m / 263.72 ft                                                                                                                                                                                                                                      |
|                                | Recognize (125ppm / 38ft)                                                               | Wide: 9.26 m / 30.38 ft, Tele: 40.19 m / 131.86 ft                                                                                                                                                                                                                                       |
|                                | Identify (250ppm / 76ft)                                                                | Wide: 4.63 m / 15.19 ft, Tele: 20.1 m / 65.93 ft                                                                                                                                                                                                                                         |
| <b>Adjusting Angle</b>         | Ceiling mounting                                                                        | Horizontal : ±180 ° (Adjust by horizontal (PAN) angle)<br>Vertical : 0 ° to 100 ° (Adjust by vertical (TILT) angle)<br>Yaw : -190 ° to +100 ° (Adjust by azimuth (YAW) angle)                                                                                                            |
|                                | Wall mounting                                                                           | Horizontal : ±100 ° (Adjust by vertical (TILT) angle)<br>Vertical : ±100 ° (Adjust by vertical (TILT) angle)<br>Yaw : -190 ° to +100 ° (Adjust by azimuth (YAW) angle)<br>*You can change between horizontal and vertical angels by adjusting the horizontal (PAN) angle.                |
| <b>Browser GUI</b>             | 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                                                                                                                                                   |
| <b>Network</b>                 | GUI / Setup Menu Language                                                               | English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese                                                                                                                                                                                                        |
|                                | Network IF                                                                              | 10Base-T / 100Base-TX, RJ45 connector                                                                                                                                                                                                                                                    |
|                                | Resolution <sup>6</sup>                                                                 | [16:9 mode] 3072 x 1728 <sup>7</sup> / 2560 x 1440 / 1920 x 1080 / 1280 x 720 / 640 x 360 / 320 x 180<br>[4:3 mode] 3072 x 2304 <sup>7</sup> / 2560 x 1920 / 1280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA                                                                             |
|                                | H.265 / H.264 / JPEG (MJPEG)<br>Transmission Mode<br>Transmission Type<br>Image Quality | Constant bit rate / VBR / Frame rate / Best effort<br>Unicast port (AUTO) / Unicast port (MANUAL) / Multicast<br>10 steps                                                                                                                                                                |

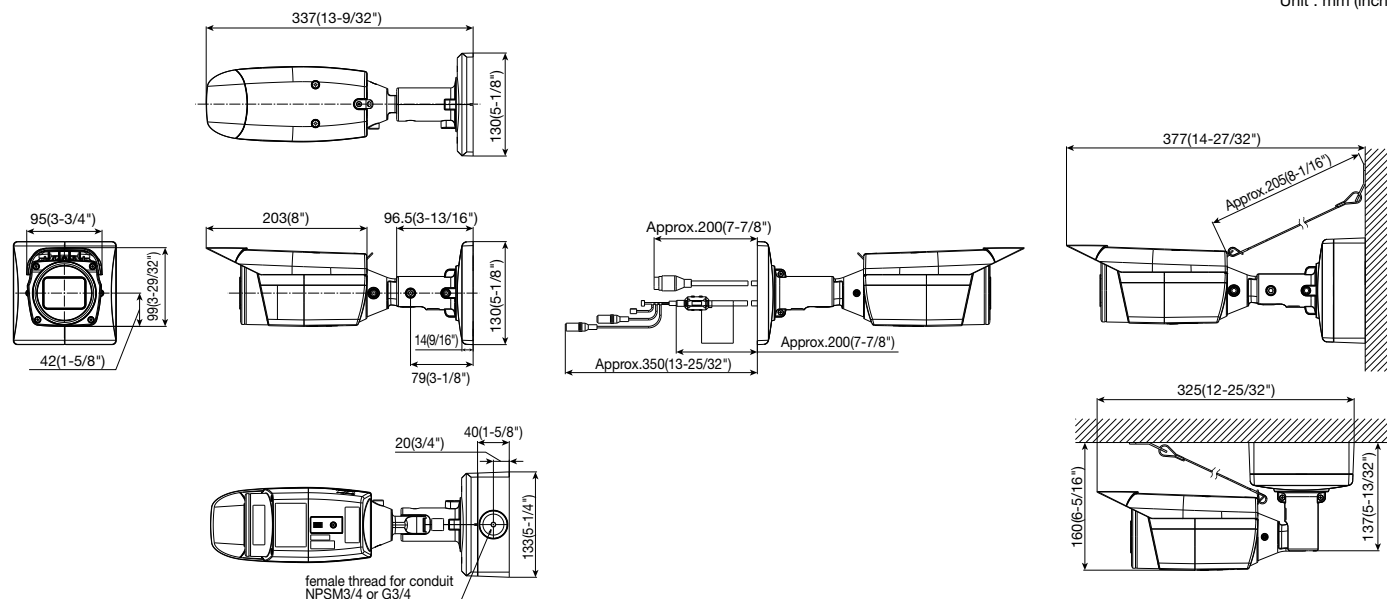
\*1 Converted value  
\*2 The frame rate is limited to 15 fps for level 30 or higher. The dynamic range is 108 dB typ / 30 fps for level 29 or lower.  
\*3 90° and 270° are invalid only in the 320x180 resolution.  
\*4 Following the setting angle of the rotated image, the analog output of the MONITOR OUT terminal rotates.  
\*5 Maximum distance at which a camera's tele and wide lens can meet DORI specifications. This value does not indicate the performance of the camera. Calculations made with the camera installed horizontally at resolution of 3072 x 1728.  
\*6 H.265/H.264 can be selected for each stream.  
\*7 Camera uses Super resolution techniques. Super resolution techniques are techniques that enhance the resolution of an image.  
\*8 Transmission for 4 streams can be individually set.

|                      |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <b>Network</b>       | Smart Coding                                                                                                                                                                                                                                 | <b>GOP (Group of pictures) control :</b><br>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.<br><b>Auto VQoS :</b> On / Off                                                                                                                                                                                                                                                    |                                                                                                                                   |
|                      | Audio Compression                                                                                                                                                                                                                            | G.726 (ADPCM) : 16 kbps / 32 kbps , G.711 : 64 kbps<br>AAC-LC <sup>9</sup> : 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, SMTP, DNS, NTP, SNMP, DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ, SSL/TLS <sup>10</sup> , SRTP <sup>10</sup> , SFTP <sup>10</sup> , MQTT <sup>10</sup> , LLDP <sup>10</sup><br>IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, RTP, RTSP, RTP, RTCP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ, SSL/TLS <sup>10</sup> , SRTP <sup>10</sup> , SFTP <sup>10</sup> , MQTT <sup>10</sup> , LLDP <sup>10</sup> |                                                                                                                                   |
|                      | No. of Simultaneous Users                                                                                                                                                                                                                    | Up to 14 users (Depends on network conditions)                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                   |
|                      | SDXC/SDHC/SD Memory Card                                                                                                                                                                                                                     | H.265 / H.264 recording :<br>Manual REC / Alarm REC (Pre/Post) / Schedule REC / Backup upon network failure<br>JPEG recording : Manual REC / Alarm REC (Pre/Post)<br>Compatible SDXC/SDHC/SD Memory Card :<br>Panasonic 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64 GB*, 128 GB*, 256 GB** model *SDHC card, ** SDXC card (except miniSD card and microSD card)                                                                                                                     |                                                                                                                                   |
|                      | Mobile Terminal Compatibility                                                                                                                                                                                                                | iPad, iPhone, Android™ terminals                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |
|                      | ONVIF <sup>®</sup> Profile                                                                                                                                                                                                                   | G / S / T                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                   |
|                      | <b>Alarm</b>                                                                                                                                                                                                                                 | Alarm Source                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 3 terminals input, VMD alarm, SCD alarm, Command alarm                                                                            |
|                      |                                                                                                                                                                                                                                              | Alarm Actions                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notification, Indication on browser, TCP alarm notification output |
| <b>Input/ Output</b> | Monitor Output (for adjustment)                                                                                                                                                                                                              | VBS : 1.0 V [p-p] / 75 Ω, composite, Pin jack<br>An NTSC or PAL signal can be outputted from camera                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |
|                      | Audio input                                                                                                                                                                                                                                  | ø3.5 mm stereo mini jack<br>For microphone input : 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)<br>Supply voltage : 2.5 V ±0.5 V                                                                                                                                                                                                                       |                                                                                                                                   |
|                      | For line input :                                                                                                                                                                                                                             | Input level : Approx. -10 dBV                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |
|                      | Audio Output <sup>11</sup>                                                                                                                                                                                                                   | ø3.5 mm stereo mini jack (Audio output is monaural.)<br>Output impedance : Approx. 600 Ω (unbalanced)<br>Output level : -20 dBV                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   |
| <b>General</b>       | External I/O Terminals                                                                                                                                                                                                                       | 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)                                                                                                                                                                                                                                                                                                         |                                                                                                                                   |
|                      | Safety                                                                                                                                                                                                                                       | UL (UL60950-1), c-UL (CSA C22.2 No.60950-1), CE, IEC60950-1                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                   |
|                      | EMC                                                                                                                                                                                                                                          | FCC (Part15 ClassA), ICES003 ClassA, EN55032 ClassB, EN55024                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                   |
|                      | Power Source and Power Consumption                                                                                                                                                                                                           | DC power supply : DC 12 V 930 mA/Approx. 11.2 W<br>PoE (IEEE802.3af compliant) Device : DC48 V 240 mA/Approx. 11.5 W (Class 0 device)                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                   |
|                      | Ambient Operating Temperature                                                                                                                                                                                                                | -40 °C to +60 °C (-40 °F to +140 °F) <sup>12</sup><br>(Power On range : -30 °C to +60 °C (-22 °F to +140 °F))                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |
|                      | Ambient Operating Humidity                                                                                                                                                                                                                   | 10 to 100 % (no condensation)                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |
|                      | Dehumidification Device                                                                                                                                                                                                                      | Temish element+Fan/Heater                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                   |
|                      | Water and Dust Resistance                                                                                                                                                                                                                    | IP66 (IEC60529), Type 4X (UL50E), NEMA 4X compliant                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                   |
|                      | Shock Resistance                                                                                                                                                                                                                             | IK10 (IEC 62262)                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                   |
|                      | Wind Resistance                                                                                                                                                                                                                              | Up to 40 m/s (approx. 89 mph)                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                   |
| Dimensions           | With adapter box : 133 mm (W) x 133 mm (H) x 377 mm (L)<br>(5-1/4 inches(W) x 5-1/4 inches(H) x 14-27/32 inches(L))<br>Without adapter box : 130 mm (W) x 130 mm (H) x 337 mm (L)<br>(5-1/8 inches(W) x 5-1/8 inches(H) x 13-9/32 inches(L)) |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   |
| Mass                 | With adapter box : 2.2 kg (4.85 lbs)<br>Without adapter box : 1.7 kg (3.75 lbs)                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   |
| Finish               | Main body : Aluminum die cast and resin, i-PRO white<br>Outer fixing screws : Stainless steel (Corrosion-resistant treatment)<br>Front panel : Polycarbonate resin, Clear                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                   |

\*9 When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).  
\*10 It may be necessary to upgrade the firmware to use these protocols  
\*11 The audio output can be switched to the monitor output. Refer to the Operating Instructions on our support web site for descriptions of how to switch the output.  
\*12 When using with the IR LED light constantly lit, the upper limit of the operating temperature range is +50 °C (+122 °F).

## Appearance

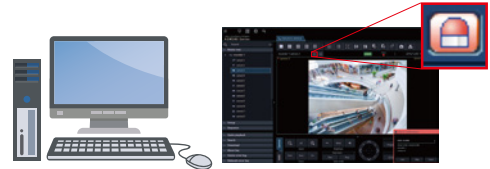
Unit : mm (inches)



## Bundled License

### Plug-in Software for i-VMD


i-VMD is possible to detect objects in the specified area by advanced video analysis technology.  
 i-VMD : Intruder Detection, Loitering Detection, Direction Detection,  
 Object Detection, Cross Line Detection



Notification sent to the monitoring screen

## Optional Accessories

### Mount Bracket

|                                                                                                                                                                                                                |                                                                                                                                                                        |                                                                                                                                                                          |                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Ceiling Mount Bracket<br/> <b>WV-QCL100-W</b><br/>                 (i-PRO white)</p>  <p>*For indoor installation only</p> | <p>Pole Mount Bracket<br/> <b>WV-QPL500-W</b><br/>                 (i-PRO white)</p>  | <p>Corner Mount Bracket<br/> <b>WV-QCN500-W</b><br/>                 (i-PRO white)</p>  | <p>Front Panel<br/> <b>WV-CW8CN</b><br/>                 (Clear type with ClearSight coating)</p>  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

• Brackets are available in four colors, Fine silver, Light gray, Gray and i-PRO white. It is possible to use them in different color combinations.

#### 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.

#### 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.