

## 4K (3,840 x 2,160) iA H.265 Network Camera

Panasonic WV-S2270L captures the highest quality 4K resolution images in even very challenging and dynamic environments. Intelligent Auto (iA) monitors scene dynamics and motion to adjust key camera settings automatically in real-time reducing distortion such as motion blur on moving objects. Adopting H.265 Smart Coding technology, bandwidth efficiency is intelligently increased for longer recording and less storage. Cameras out-of-the-box, use an encryption module standardized by FIPS Publication 140-2 for secure video streaming.

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

- True 4K lens and large image sensor realize wide area surveillance with high quality images
- Auto Shutter speed control for moving objects
- Outstanding low light performance in true color with low noise for night time applications
- Built-in IR LED to produce a clear monochrome image in 0 lux conditions with 30 m (98 feet) irradiation distance
- Environmental durability : IK10

### Extreme bandwidth compression with new Panasonic H.265 Smart Coding

- Longer recording and less storage compared to any H.264 based compression techniques
- New self-learning ROI\* encoding (Auto VIQS) detects movement within the image and compresses the areas with little motion in order to reduce transmitted data while maintaining the quality of the image.

\*Region of Interest

### Extreme Data Security

- Full encryption SD card edge recording to keep your data safe
- FIPS140-2 CAVP compliant \*Using encryption module standardized by FIPS publication 140-2
- Full end-to-end system encryption with supported VMS and devices to protect from IP snooping/spoofing and detect data alteration

### Key Features

- 4K (3,840 x 2,160) up to 30fps
- iA (intelligent Auto)
- Color night vision (0.006 to 0.09 lx)
- H.265 Smart Coding
- i-VMD License Bundled

### Industry examples

- Airport (Passport control / Security checkpoint / Ticket counter)
- Retail / Bank / Education / Hospital / Building



## Specifications

|                        |                                                   |                                                                                                                                                                                                                                                                    |
|------------------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Camera</b>          | Image Sensor                                      | 1/1.8 type CMOS image sensor                                                                                                                                                                                                                                       |
|                        | Minimum Illumination                              | Color : 0.09 lx, BW : 0.05 lx<br>(F1.5, Maximum shutter : Off (1/30s), AGC : 11)<br>BW : 0 lx<br>(F1.5, Maximum shutter : Off (1/30 s), AGC : 11, when the IR LED is lit)<br>Color : 0.006 lx, BW : 0.003 lx<br>(F1.5, Maximum shutter : max. 16/30s, AGC : 11) *1 |
|                        | White Balance                                     | ATW1, ATW2, AWC                                                                                                                                                                                                                                                    |
|                        | Shutter Speed                                     | 1/30 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 120 dB (Super Dynamic : On, Level : 31)                                                                                                                                                                                                                        |
|                        | 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) / Auto1 (IR Light Off) / Auto2 (IR Light On) / Auto3 (SCC)                                                                                                                                                              |
|                        | IR LED Light                                      | High / Middle / Low / Off,<br>Maximum irradiation distance : 30 m (Approx. 98 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                                                                                                                                                                                                                                        |
|                        | Intelligent VMD (i-VMD)                           | Type6 *Bundled License                                                                                                                                                                                                                                             |
|                        | Privacy Zone                                      | On / Off (up to 8 zones available)                                                                                                                                                                                                                                 |
|                        | Image rotation <sup>*2</sup> <sup>*3</sup>        | 0 ° (Off) / 90 ° / 180 ° (Upside-down) / 270 °                                                                                                                                                                                                                     |
|                        | Camera Title (OSD)                                | On / Off Up to 20 characters (alphanumeric characters, marks)                                                                                                                                                                                                      |
| <b>Lens</b>            | Zoom Ratio                                        | 2x Optical zoom (Motorized zoom / Motorized focus)<br>6x HD Extra Optical Zoom (when resolution is 1280x720)                                                                                                                                                       |
|                        | Digital (electronic) zoom                         | Choose from 3 levels of x1, x2, x4                                                                                                                                                                                                                                 |
|                        | Focal length                                      | 4.3 mm - 8.6 mm (5/32 inches - 11/32 inches)                                                                                                                                                                                                                       |
|                        | Maximum Aperture Ratio                            | 1 : 1.5 (WIDE) - 1 : 2.4 (TELE)                                                                                                                                                                                                                                    |
|                        | Focus range                                       | 1 m (39-3/8 inches) - ∞                                                                                                                                                                                                                                            |
|                        | Angular Field of View                             | [16 : 9 mode] Horizontal : 52° (TELE) - 101° (WIDE)<br>Vertical : 29° (TELE) - 55° (WIDE)                                                                                                                                                                          |
| <b>Adjusting Angle</b> |                                                   | Horizontal (PAN) angle : -240 to +120°,<br>Vertical (TILT) angle : -30 to +85°, Azimuth (YAW) angle : ±100°                                                                                                                                                        |
| <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                                                                                                                   |
|                        | GUI / Setup Menu Language                         | English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese                                                                                                                                                                                  |
|                        | Setup Menu Language                               | Chinese, Japanese                                                                                                                                                                                                                                                  |
| <b>Network</b>         | Network IF                                        | 10Base-T / 100Base-TX, RJ45 connector                                                                                                                                                                                                                              |
|                        | Resolution <sup>*4</sup>                          | <b>[16 : 9 mode]</b><br>3840x2160, 2560x1440, 1920x1080, 1280x720, 640x360, 320x180                                                                                                                                                                                |
|                        | H.265/ H.264/ JPEG (MJPEG)                        | 3840x2160, 2560x1440, 1920x1080, 1280x720, 640x360, 320x180                                                                                                                                                                                                        |
|                        | H.265/ Transmission Mode                          | Constant bit rate / VBR / Frame rate / Best effort                                                                                                                                                                                                                 |
|                        | H.264 <sup>*5</sup> / Transmission Type           | Unicast / Multicast                                                                                                                                                                                                                                                |
|                        | JPEG / Image Quality                              | 10 steps                                                                                                                                                                                                                                                           |
|                        | 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 VQIS :</b> On / Off                                        |

|                      |                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Network</b>       | Audio Compression               | G.726 (ADPCM) : 16 kbps / 32 kbps<br>G.711 : 64 kbps<br>AAC-LC <sup>*6</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, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, MLD, ICMP, ARP, IEEE 802.1X, DiffServ<br>IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                      | 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 :<br>Manual REC / Alarm REC (Pre/Post) / Backup upon network failure<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<br>*SDHC card, ** SDXC card (except miniSD card and microSD card)                                                                                                                                                                                                                                                                                                                                                           |
|                      | Mobile Terminal Compatibility   | iPad, iPhone, Android™ mobile terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Alarm</b>         | Alarm Source                    | 3 terminals input, VMD alarm, Command alarm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                      | Alarm Actions                   | SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notification, Indication on browser, FTP image transfer, Panasonic alarm protocol output                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Input/ Output</b> | Monitor Output (for adjustment) | VBS : 1.0 V [p-p] / 75 Ω, composite, ø3.5 mm mini 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>*7</sup>      | ø3.5 mm stereo mini jack (Audio output is monaural)<br>Output impedance : Approx. 600 Ω (unbalanced)<br>Output level : -20 dBV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                      | External I/O Terminals          | ALARM IN 1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1)<br>ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1) , ALARM IN 3 (Alarm input 3/ AUX OUT) (x1)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                      | General                         | Safety : UL (UL60950-1), c-UL (CSA C22.2 No.60950-1), CE, IEC60950-1<br>EMC : FCC (Part15 ClassA), ICES003 ClassA, EN55032 ClassB, EN55024<br>Power Source and Power Consumption : DC power supply : DC12 V 770 mA/ Approx. 9.2 W<br>PoE (IEEE802.3af compliant) Device : DC48 V 200 mA/ Approx. 9.6 W (Class 0 device)<br>Ambient Operating Temperature : -10 °C to +50 °C (14 °F to 122 °F)<br>Ambient Operating Humidity : 10 to 90 % (no condensation)<br>Shock Resistance : IK10 (IEC 62262)<br>Dimensions : ø129.5 mm x 102.5 mm (H) (ø5-3/32 inches x 4-1/32 inches (H))<br>Dome radius 41.5 mm (1-5/8 inches)<br>Mass : Approx. 780 g (1.72 lbs)<br>Finish : Main body : Polycarbonate resin Sail white<br>Dome cover : Polycarbonate resin Clear |

\*1 Converted value

\*2 90° and 270° are valid only in the 15 fps.

\*3 Following the setting angle of the rotated image, the analog output of the MONITOR OUT terminal rotates.

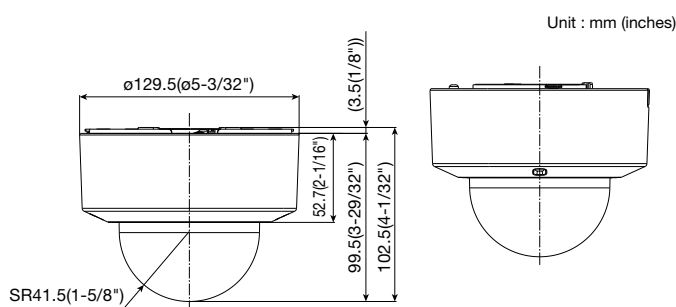
\*4 H.265/H.264 can be selected for each stream.

\*5 Transmission for 4 streams can be individually set.

\*6 When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).

\*7 This camera is not equipped with the function to change the audio output to the monitor output.

## Appearance



### Trademarks and registered trademarks

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### Important

- Safety Precaution : Carefully read the Important Information, Installation Guide and operating instructions before using this product.
- Panasonic cannot be responsible for the performance of the network and/or other manufacturers' products used on the network.

## 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, Scene Change Detection, Object Detection, Cross Line Detection



## Optional Accessories

| Mount Bracket / Dome Cover               |                                                     |                                           |
|------------------------------------------|-----------------------------------------------------|-------------------------------------------|
| Ceiling Mount Bracket<br><b>WV-Q105A</b> | Ceiling Mount Bracket (Embedded)<br><b>WV-Q174B</b> | Dome Cover (Smoke Type)<br><b>WV-CR1S</b> |
|                                          |                                                     |                                           |

- Masses and dimensions are approximate.
- Specifications are subject to change without notice.

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