

## iA (intelligent Auto) H.265 Compact Dome Camera

Panasonic WV-S3531L is a compact & simple design multifunction camera that achieves high visibility even under extreme conditions and can be placed in a small space without damaging the landscape. Intelligent Auto (iA) allows the camera to automatically adjust the key settings in real-time depending on the scenery and movement, reducing distortion such as motion blur and moving objects. New industry-leading 144dB dynamic range delivers balanced scene exposure in dynamic and extreme-backlit lighting environments. In addition, color night vision provides outstanding low-light performance with accurate color rendition and saturation from i-Pro's 1/3" sensor, rivaling the performance of costlier 1/2" sensor cameras in the market. The adopted H.265 Smart Coding technology, intelligently reduces bandwidth efficiency of up to 95%\* more than conventional H.264 for longer recording and less storage. Cameras out-of-the-box, support full data encryption streaming and is compliant to FIPS 140-2 Level 1 standards to keep your video secured.

\*Value in Advanced mode with Smart Facial Coding depends on scene.

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

- Auto Shutter speed control for fast moving objects with Intelligent Auto
- Sharp and clear images of a walking person day & night
- Outstanding low light performance in true color with low noise for night time applications
- Super Dynamic 144dB for backlit situations involving headlights and shadows on night streets
- Built-in IR LED to produce a clear monochrome image in 0 lux conditions with 15 m (49 feet) irradiation distance
- Wide area surveillance even in compact design. moreover, corridor mode to survey vertically long area.
- Environmental durability : IP66, IK10

### Extreme H.265 compression with new 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.
- New "Smart Facial Coding" adds more bandwidth reduction for ID camera applications mainly capturing faces

\*Region of Interest

### Extreme Data Security

- Full encryption microSDXC/microSDHC/microSD card edge recording to keep your data safe
- FIPS 140-2 Level 1 compliant
- Full end-to-end system encryption with supported VMS and devices to protect from IP snooping/spoofing and detect data alteration

### Key Features

- Full HD 1080p 60fps
- iA (intelligent Auto)
- Extreme Super Dynamic 144dB
- Color night vision (0.0019 to 0.03 lx)
- H.265 Smart Coding
- Built-in IR LED
- Corridor mode  
(90 degrees or 270 degrees in image rotation)

### Industry examples

- Education
- Retail
- Bank (ATM)
- Building



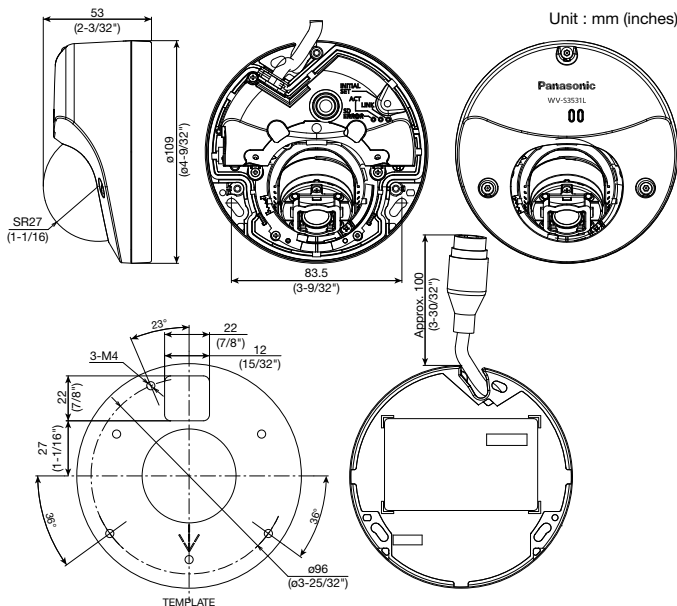
# Specifications

|                        |   |   |
|------------------------|---|---|
| <b>Camera</b>          | Image Sensor                                      | Approx. 1/3 type CMOS image sensor  |
|                        | Minimum Illumination                              | Color : 0.03 lx, BW : 0.015 lx<br>(F2.3, Maximum shutter : Off (1/30s), AGC : 11)<br>BW : 0 lx<br>(F2.3, Maximum shutter : Off (1/30 s), AGC : 11, when the IR LED is lit)<br>Color : 0.0019 lx, BW : 0.0009 lx<br>(F2.3, Maximum shutter : max. 16/30s, AGC : 11) *1 |
|                        | White Balance                                     | AWC (2,000 - 10,000 K), ATW1 (2,700 - 6,000 K), ATW2 (2,000 - 6,000 K)  |
|                        | Maximum shutter                                   | Max. 1/10000 s to Max. 16/30 s  |
|                        | Intelligent Auto                                  | On / Off  |
|                        | Super Dynamic <sup>2</sup>                        | On / Off, the level can be set in the range of 0 to 31.   |
|                        | Dynamic Range                                     | 144 dB typ. (Super Dynamic : On)  |
|                        | 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 (only when Super dynamic / Intelligent Auto : Off)  |
|                        | Fog compensation                                  | On / Off (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, Maximum irradiation distance : 15 m {Approx. 49 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) <sup>3</sup>              | Type 4 *optional plug-in software WV-SAE200   |
|                        | Privacy Zone                                      | On / Off (up to 8 zones available)  |
|                        | Image rotation <sup>4</sup>                       | 0° / 90° / 180° (Upside-down) / 270°  |
|                        | Mirror  | On / Off  |
|                        | Camera Title (OSD)                                | On / Off Up to 20 characters (alphanumeric characters, marks)   |
| <b>Lens</b>            | Zoom Ratio  | 1 x Optical   |
|                        | Digital (electronic) zoom                         | Choose from 3 levels of x1, x2, x4  |
|                        | Focal length                                      | 2.8 mm (1/8 inches)   |
|                        | Angular Field of View                             | [16 : 9 mode] Horizontal : 108°<br>Vertical : 60°<br>[4 : 3 mode] Horizontal : 89°<br>Vertical : 66°  |
|                        | Maximum Aperture Ratio                            | 1 : 2.3   |
| Focus range            | 0.5 m (19-11/16 inches) – ∞                       |   |
| <b>Adjusting Angle</b> |   | Horizontal (PAN) angle : ±45°, Vertical (TILT) angle : 0 to +90°, Azimuth (YAW) angle : ±90°  |
|                        |   |   |
| <b>GUI</b>             | Camera Control                                    | Brightness  |
|                        | GUI / Setup Menu Language                         | English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese   |
| <b>Network</b>         | Network IF  | 10Base-T / 100Base-TX, RJ45 connector   |
|                        | Resolution  | <b>*2 mega pixel [16 : 9] (30/60 fps)</b><br>1,920 x 1,080 / 1,280 x 720 / 640 x 360 / 320 x 180  |
|                        | H.265 / H.264<br>JPEG (MJPEG)                     | <b>*3 mega pixel [4 : 3] (30 fps)</b><br>2,048 x 1,536 <sup>5</sup> / 1,280 x 960 / 800 x 600 / 640 x 480 / 400 x 300 / 320 x 240<br>Constant bit rate / VBR / Frame rate / Best effort   |
|                        | H.265 / H.264 <sup>6</sup>                        | Transmission Mode<br>Unicast / Multicast  |
|                        | JPEG  | Image Quality<br>10 steps   |
|                        | Smart Coding                                      | <b>GOP(Group of pictures) control</b><br>[When H.264 is selected] Off / On(Low) / On(Mid)<br>[When H.265 is selected] Off / On(Low) / On(Mid) / On(Advanced) / On(Frame rate control)   |
|                        |   | <b>Smart Facial Coding<sup>*</sup></b><br>Off / On(AUTO VIQS) / On(Smart Facial Coding)<br><sup>*</sup> Smart Facial Coding is only available with Stream(1).   |

|                     |  |   |
|---------------------|--|---|
| <b>Network</b>      | Audio Compression                                      | G.726 (ADPCM) : 16 kbps / 32 kbps<br>G.711 : 64 kbps<br>AAC-LC <sup>7</sup> : 64 kbps / 96 kbps / 128 kbps  |
|                     | 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)  |
|                     | microSDXC/microSDHC/microSD Memory Card <sup>8,9</sup> | 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 microSDXC/microSDHC/microSD Memory Card :<br>Panasonic 2 GB, 4 GB*, 8 GB*, 32 GB*, 64 GB**model<br>*microSDHC card, **microSDXC card |
|                     | Mobile Terminal Compatibility                          | iPad, iPhone, Android™ mobile terminals   |
| <b>Alarm</b>        | Alarm Source   | VMD alarm <sup>10</sup> , Command alarm, Audio detection alarm  |
|                     | Alarm Actions  | microSDXC/microSDHC/microSD memory recording, E-mail notification, HTTP alarm notification Indication on browser, FTP image transfer, Panasonic alarm protocol output   |
| <b>Input/Output</b> | Built-in microphone                                    | Nondirectional electret condenser microphone  |
| <b>General</b>      | Safety   | UL (UL60950-1 2Ed), c-UL (CAN/CSA C22. NO.60950-1-07), CE, IEC60950-1   |
|                     | EMC  | FCC (Part15 Subpart B, ClassA, SDoC), ICES-003 ClassA, EN55032 ClassB, EN55024, ECE-R10, EN50498, EN50121   |
|                     | Power Source and Power Consumption                     | PoE (IEEE802.3af compliant) Device :<br>DC48 V 80 mA, Approx. 3.8 W (Class 2 device)  |
|                     | Ambient Operating Temperature                          | -30 °C to +50 °C (-22 °F to 122 °F)<br>{Power on range : -20 °C to +50 °C (-4 °F to +122 °F)}   |
|                     | Ambient Operating Humidity                             | 10 to 100 % (no condensation)   |
|                     | Water and Dust Resistance                              | IP66 (IEC60529), Type 4X(UL50), NEMA 4X compliant   |
|                     | Shock Resistance                                       | IK10 (IEC 62262)  |
|                     | Railway Application                                    | EN50155 : 2017 Class OT2/ST2 (EN 50155 : 2007 Class TX), IEC62236-3-2   |
|                     | Dimensions   | ø109 mm x 53 mm (H) {ø4-9/32 inches x 2-3/32 inches (H)}<br>Dome radius 27 mm (1-1/16 inches)   |
|                     | Mass (approx.)   | Approx. 410 g (0.91 lbs)  |
|                     | Finish   | Main body : Aluminum die cast, Light gray<br>Dome section : Polycarbonate resin, Clear  |

- \*1 Converted value
- \*2 Super Dynamic function is automatically set off on 60 fps mode.
- \*3 Smart Facial Coding, i-VMD can not be used at the same time.
- \*4 Settings of [90 °] and [270 °] are only available for the [16 : 9] mode.
- \*5 Used by super resolution techniques
- \*6 Transmission for 4 streams can be individually set.
- \*7 When recording audio on an microSDXC/microSDHC/microSD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).
- \*8 The replacement cycle (target) of a microSD memory card differs from that of a standard size SD memory card. For details, check the content of the Panasonic Support website ([https:// security.panasonic.com/support/info/](https://security.panasonic.com/support/info/) (Control No.: C0117>)).
- \*9 For details, check the content of the Panasonic Support Web Site (<https://security.panasonic.com/support/info/> <Control No.: C0306><Control No.: C0307>)
- \*10 Including alarms from Plug-in Software

## Appearance



## Optional Accessory

### Plug-in Software for i-VMD WV-SAE200

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



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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.

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

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