# Panasonic BUSINESS

# WV-S1531LN



# iA (intelligent Auto) H.265 Network Camera

Panasonic WV-S1531LN captures the highest quality images automatically even in very challenging and fast-changing surveillance 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. 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. Adopting H.265 Smart Coding technology, intelligently reduces bandwidth efficiency of up to an average 75 percent over 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.

## Extreme image quality for evidence capturing under challenging conditions.

- Auto Shutter speed control for fast moving vehicles
- Sharp and clear image 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 situation and shadows on the streets at night

## **Extreme H.265 compression with new Smart Coding**

- Longer recording, less storage compared to any H.264 based compression techniques
- New self-learning ROI\* encoding (Auto VIQS) dynamically detect motion areas to keep vehicles and human in good picture quality while lowering your bandwidth
- New "Smart Facial Coding" adds more bandwidth reduction for ID camera applications mainly capturing faces
  \*Region of Interest

## **Extreme Data Security**

- Full encryption SD 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 (0.0008 to 0.012 lx)
- H.265 Smart Coding
- FIPS 140-2 Level 1 compliant
- ClearSight Coating

#### **Applications**

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



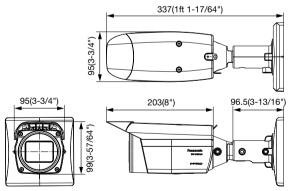


#### **Specifications**

| Camera         |  | Approx. 1/3 type MOS image sensor   |
|----------------|--|---|
|                | Minimum Illumination   | Color : 0.012 lx, BW : 0.006 lx   |
|                |  | (F1.6, Maximum shutter : Max. 1/30s, AGC : 11)  |
|                |  | BW : 0 lx   |
|                |  | (F1.6, Maximum shutter : Off(1/30 s), AGC : 11, when the IR LED is lit  |
|                |  | Color: 0.0008 lx, BW: 0.0004 lx   |
|                |  | (F1.6, 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)  |
|                | Shutter Speed  | Off(1/30) to 1/10000  |
|                |  | *1/30 Fix to 2/100 Fix is available during 30 fps mode only.  |
|                |  | *2/120 Fix is available during 60 fps mode only.  |
|                | Intelligent Auto   | On / Off  |
|                | Super Dynamic*2  | On / Off, the level can be set in the range of 0 to 31.   |
|                | Dynamic Range  | 144 dB (Super Dynamic : On)   |
|                | Adaptive Black Stretch   | The level can be set in the range of 0 to 255.  |
|                | Black light compensation /   | BLC (Black light compensation) / HLC (High light compensation) / Off  |
|                | High light compensation  | (Only when Super dynamic and Intelligent Auto : Off)  |
|                |  |   |
|                | Fog compensation   | On / Off (Only when Intelligent Auto : Off)   |
|                | Maximum gain (AGC)   | The level can be set in the range of 0 to 11.   |
|                | Day/Night (ICR)  | Off / On / Auto1 (Normal) / Auto2 (IR Light) / Auto3 (SCC)  |
|                | IR LED   | Off / Auto (High / Mid / Low) irradiation distance : 40 m (131 feet)  |
|                | Digital Noise Reduction  | The level can be set in the range of 0 to 255.  |
|                | Video Motion Detection   | On / Off, 4 areas available   |
|                | Image Stabilizer   | On / Off (available only in the 30 fps mode)  |
|                | Privacy Zone   | On / Off (up to 8 zones available)  |
|                | Image rotation*3   | 0°/90°/180°/270°  |
|                | Camera Title (OSD)   | On / Off Up to 20 characters (alphanumeric characters, marks)   |
|                | Focus Adjustment   | Auto back focus / Manual  |
| Lens           | Focal length   | 2.8 - 10 mm {1/8 inches - 13/32 inches}   |
|                | Zoom ratio   | 3.6 x (Motorized zoom / Motorized focus)  |
|                | Angular Field of View  | [16 : 9 mode] Horizontal : 31° (TELE) – 112° (WIDE)   |
|                |  | Vertical: 17° (TELE) – 60° (WIDE)   |
|                |  | [4:3 mode] Horizontal: 26° (TELE) – 91° (WIDE)  |
|                |  | Vertical: 19° (TELE) – 67° (WIDE)   |
|                | Maximum Aperture Ratio   | 1: 1.6 (WIDE) - 1: 3.4 (TELE)   |
|                | Focusing Range   | 0.3 m {11-13/16 inches} - ∞   |
| Adjusting      | Ceiling mounting   |   |
| Angle          | Celling mounting   | Horizontal: ±180 ° (PAN rotation part)  |
| Angle          | Centring mountaing   | Horizontal: ±180 ° (PAN rotation part)  Vertical: 0 ° to 100 ° (TILT rotation part)   |
| Angle          | Centing mounting   | . ,   |
| Angle          | Wall mounting  | Vertical : 0 ° to 100 ° (TILT rotation part)  |
| Angle          | o o  | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw : -190 ° to +100 ° (YAW rotation part)  |
| Angle          | o o  | Vertical   : 0 ° to 100 ° (TILT rotation part)  |
| Angle          | o o  | Vertical         : 0 ° to 100 ° (TILT rotation part)           Yaw         : −190 ° to +100 ° (YAW rotation part)           Horizontal : ±100 ° (TILT rotation part)*           Vertical         : ±100 ° (TILT rotation part)*           Yaw         : −190 ° to +100 ° (YAW rotation part)  |
|                | Wall mounting  | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw : -190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (TILT rotation part)*  Vertical : ±100 ° (TILT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  *You can change between horizontal and vertical angels by adjusting the PAN rotation part  |
| Browser        | Wall mounting  Camera Control  | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :=190 ° to ±100 ° (YAW rotation part)  Horizontal : ±100 ° (TILT rotation part)*  Vertical :±100 ° (TILT rotation part)*  Yaw :=190 ° to ±100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part  Brightness, AUX On / Off   |
|                | Wall mounting  | Vertical   0 ° to 100 ° (TILT rotation part)  |
| Browser        | Wall mounting  Camera Control  Audio   | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :=190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (TILT rotation part)*  Vertical :=100 ° (TILT rotation part)*  Yaw :=190 ° to +100 ° (YAW rotation part)  "You can change between horizontal and vertical angels by adjusting the PAN rotation part  Brightness, AUX On / Off  Wic (Line) Input : On / Off  Volume adjustment : Low / Middle / High  Audio Output : On / Off  Volume adjustment : Low / Middle / High  |
| Browser        | Wall mounting  Camera Control Audio  GUI /   | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (ITLT rotation part)*  Vertical :±100 ° (ITLT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part  Brightness, AUX On / Off  Mic (Line) Input : On / Off  Volume adjustment : Low / Middle / High  Audio Output : On / Off  Volume adjustment : Low / Middle / High  English, Italian, French, German, Spanish, Portuguese, Russian,  |
| Browser<br>GUI | Wall mounting  Camera Control  Audio  GUI /  Setup Menu Language   | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (ILT rotation part)*  Vertical :±100 ° (ILT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part)  Brightness, AUX On / Off  Mic (Line) Input : On / Off  Audio Output : On / Off  Volume adjustment : Low / Middle / High  Audio Output : On / Off  Finglish, Italian, French, German, Spanish, Portuguese, Russian,  Chinese, Japanese   |
| Browser<br>GUI | Wall mounting  Camera Control Audio  GUI / Setup Menu Language Network IF  | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (TILT rotation part)*  Vertical :±100 ° (TILT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  'You can change between horizontal and vertical angels by adjusting the PAN rotation part.  Brightness, AUX On / Off  Mic (Line) Input : On / Off  Volume adjustment : Low / Middle / High  Audio Output : On / Off  Volume adjustment : Low / Middle / High  English, Italian, French, German, Spanish, Portuguese, Russian,  Chinese, Japanese  10Base-T / 100Base-TX, RJ45 connector  |
| Browser<br>GUI | Wall mounting  Camera Control  Audio  GUI /  Setup Menu Language   | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (ITLT rotation part)*  Vertical :±100 ° (ITLT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part  Brightness, AUX On / Off  Mic (Line) Input : On / Off Volume adjustment : Low / Middle / High  Audio Output : On / Off Volume adjustment : Low / Middle / High  English, Italian, French, German, Spanish, Portuguese, Russian,  Chinese, Japanese  10Base-T / 100Base-TX, RJ45 connector  *2 mega pixel [16 : 9] (30/60 fps)   |
| Browser<br>GUI | Wall mounting  Camera Control Audio  GUI / Setup Menu Language Network IF  | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (ILT rotation part)*  Vertical :±100 ° (ILT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  Yaw a:-190 ° to +100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part  Brightness, AUX On / Off  Mic (Line) Input : On / Off  Volume adjustment : Low / Middle / High  Audio Output : On / Off  Volume adjustment : Low / Middle / High  Faglish, Italian, French, German, Spanish, Portuguese, Russian,  Chinese, Japanese  10Base-T / 100Base-TX, RJ45 connector  22 mega pixel [16 : 9] (30/60 fps)  1,920 x 1,080 / 1,280 x 720 / 640 x 360 / 320 x 180   |
| Browser<br>GUI | Wall mounting  Camera Control Audio  GUI / Setup Menu Language Network IF  | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (ILT rotation part)*  Vertical :±100 ° (IILT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part Brightness, AUX On / Off  Mic (Line) Input : On / Off  Audio Output : On / Off  Volume adjustment : Low / Middle / High Audio Output : On / Off  English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese  10Base-T / 100Base-TX, RJ45 connector  *2 mega pixel [16 : 9] (30/60 fps)  1,920 x 1,080 / 1,280 x 720 / 640 x 360 / 320 x 180  *3 mega pixel [4 : 3] (30 fps)   |
| Browser<br>GUI | Wall mounting  Camera Control Audio  GUI / Setup Menu Language Network IF  | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (ITLT rotation part)  Vertical :±100 ° (ITLT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part)  Brightness, AUX On / Off  Mic (Line) Input : On / Off Volume adjustment : Low / Middle / High  Audio Output : On / Off Volume adjustment : Low / Middle / High  English, Italian, French, German, Spanish, Portuguese, Russian,  Chinese, Japanese  10Base-T / 100Base-TX, RJ45 connector  *2 mega pixel [16 : 9] (30/60 fps)  1,920 x 1,080 / 1,280 x 720 / 640 x 360 / 320 x 180  3 mega pixel [4 : 3] (30 fps)  2,048 x 1,536 ′ 1,280 x 960 / 800 x 600 / 640 x 480 / 400 x 300 / 320 x 240   |
| Browser        | Wall mounting  Carnera Control  Audio  GUI / Setup Menu Language  Network IF  Image Resolution                       | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (ILT rotation part)*  Vertical :±100 ° (ILT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  Yaw a:-190 ° to +100 ° (YAW rotation part)  Yaw a:-190 ° to +100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part.  Brightness, AUX On / Off  Mic (Line) Input : On / Off  Volume adjustment : Low / Middle / High Audio Output : On / Off  Volume adjustment : Low / Middle / High Audio Output : On / Off  Volume adjustment : Low / Middle / High English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese  10Base-T / 100Base-TX, RJ45 connector  2 mega pixel [16 : 9] (30/60 fps)  1,920 × 1,080 / 1,280 × 720 / 640 × 360 / 320 × 180  3 mega pixel [4 : 3] (30 fps)  2,048 × 1,536 ° / 1,280 × 960 / 800 × 600 / 640 × 480 / 400 × 300 / 320 × 240  "Used by super resolution techniques |
| Browser<br>GUI | Wall mounting  Camera Control Audio  GUI / Setup Menu Language Network IF Image Resolution  H.265/ Transmission Mode | Vertical  |
| Browser<br>GUI | Wall mounting  Carnera Control  Audio  GUI / Setup Menu Language  Network IF  Image Resolution                       | Vertical : 0 ° to 100 ° (TILT rotation part)  Yaw :-190 ° to +100 ° (YAW rotation part)  Horizontal : ±100 ° (ILT rotation part)*  Vertical :±100 ° (ILT rotation part)*  Yaw :-190 ° to +100 ° (YAW rotation part)  Yaw a:-190 ° to +100 ° (YAW rotation part)  Yaw a:-190 ° to +100 ° (YAW rotation part)  You can change between horizontal and vertical angels by adjusting the PAN rotation part.  Brightness, AUX On / Off  Mic (Line) Input : On / Off  Volume adjustment : Low / Middle / High Audio Output : On / Off  Volume adjustment : Low / Middle / High Audio Output : On / Off  Volume adjustment : Low / Middle / High English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese  10Base-T / 100Base-TX, RJ45 connector  2 mega pixel [16 : 9] (30/60 fps)  1,920 × 1,080 / 1,280 × 720 / 640 × 360 / 320 × 180  3 mega pixel [4 : 3] (30 fps)  2,048 × 1,536 ° / 1,280 × 960 / 800 × 600 / 640 × 480 / 400 × 300 / 320 × 240  "Used by super resolution techniques |

| Network | Smart Coding   | Smart Facial Coding : On (Smart Facial Coding*) / On (Auto VIQS) / Off   |
|---------|--|--|
|         |  | *Smart Facial Coding is only available with Stream(1).   |
|         |  | GOP (Group of pictures) : On (Advanced)* / On (Low) / On (Mid) / Off   |
|         |  | *On(Advanced) is only available with H.265.  |
|         | Audio Compression                                    | G.726 (ADPCM): 32 kbps / 16 kbps,  |
|         |  | G.711: 64 kbps,  |
|         |  | AAC-LC'5: 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,<br>SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP,<br>ARP, IEEE 802.1X, DiffServ |
|         | No. of Simultaneous Users                            | Up to 14 users (Depends on network conditions)   |
|         | SDXC/SDHC/SD   | H.265 / H.264 recording :  |
|         | Memory Card (Option)                                 | Manual REC / Alarm REC (Pre/Post) / Schedule REC /   |
|         |  | Backup upon network failure  |
|         |  | JPEG recording :   |
|         |  | Manual REC / Alarm REC (Pre/Post) / Backup upon network failure  |
|         |  | Compatible SD (SDHC/SDXC) card :   |
|         |  | Panasonic 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64 GB**, 128 GB**, 256 GB** mode   |
|         |  | *SDHC card, ** SDXC card (except miniSD card and microSD card)   |
|         | Mobile Terminal Compatibility                        | iPad, iPhone, Android™ mobile terminals  |
| Alarm   | Alarm Source   | 3 terminals input, VMD, Command alarm, Audio detection alarm   |
| ,       | Alarm Actions  | SDXC/SDHC/SD memory recording, E-mail notification,  |
|         |  | HTTP alarm notification Indication on browser, FTP image transfer,   |
|         |  | Panasonic protocol output  |
| Input/  | Monitor Output                                       | VBS : 1.0 V [p-p] / 75 Ω, composite, Pin jack  |
| Output  | (for adjustment)                                     | An NTSC or PAL signal can be outputted from camera   |
|         | Microphone/Line Input                                | ø3.5 mm stereo mini jack   |
|         |  | (Applicable microphone : Plug-in power type)   |
|         |  | Supply voltage : 2.5 V ±0.5 V  |
|         | Audio Output   | ø3.5 mm stereo mini jack (monaural output)   |
|         | Addio Odiput   | Output impedance : Approx. 600 Ω (unbalanced)  |
|         | External I/O Terminals                               | ALARM IN 1 (DAY/NIGHT IN, Auto time adjustment) (x1),  |
|         | External //O Terminals                               | ALARM IN 2 (ALARM OUT) (x1), ALARM IN 3 (AUX OUT) (x1)   |
|         | Power Source and                                     | DC power supply: DC12 V / 750 mA / Approx. 9.0 W   |
| General | Power Consumption                                    | PoE (IEEE802.3af compliant) Device :   |
|         | Fower Consumption                                    | DC48 V / 195 mA / Approx. 9.4 W (Class 0 device)   |
|         | A  | -40 °C to +60 °C (-40 °F to 140 °F)  |
|         | Ambient Operating                                    | -40 °C to +60 °C (-40 °F to 140 °F)  |
|         | Temperature  | 10 +- 100 0/ /   |
|         | Ambient Operating Humidity Water and Dust Resistance | 10 to 100 % (no condensation)  |
|         | water and Dust Resistance                            | IP66, IEC60529 measuring standard compatible,  |
|         | Shock Resistance                                     | Type 4X(UL50), NEMA 4X compliant   |
|         |  | Compliant with IK10 (IEC 62262)  |
|         | Dimensions   | 95 mm (W) x 99 mm (H) x 337 mm (L)   |
|         | * Installing using the base bracket                  | {3-3/4 inches (W) x 3-57/64 inches (H) x 1ft 1-17/64 inches (L)}   |
|         | Mass (approx.)                                       | Approx. 1.6 kg {3.53 lbs}  |
|         | Finish   | Main body : Aluminum die cast, light gray  |
|         |  | Front cover section clear part : Clear polycarbonate resin (ClearSight coating   |

## **Appearance**



# 337(1ft 1-17/64")

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

#### 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.

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(40)(1-5/8")



Unit: mm (inches)

<sup>&</sup>quot;2 Super Dynamic function is automatically set off on 60 fps mode.
"3 When "3 mega pixel [4 : 3](30fps mode)" is selected for "Image capture mode", "90 °" and "270 °"

<sup>\*4</sup> Transmission for 4 streams can be individually set.

<sup>\*5</sup> Only use AAC-LC (Advanced Audio Coding - Low Complexity) when recording audio on an SD memory card.