

## iA (intelligent Auto) H.265 Network Camera with tele lens

Panasonic WV-S1531LTN captures the highest quality images automatically even in very challenging and fast-changing surveillance environments. 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 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. It depends on the scene.

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

- Auto Shutter speed control for fast moving vehicles
- 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
- Environmental durability : IP66, IK10 and Dehumidification device

### 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 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 (0.001 to 0.015 lx)
- H.265 Smart Coding
- FIPS 140-2 Level 1 compliant
- ClearSight Coating

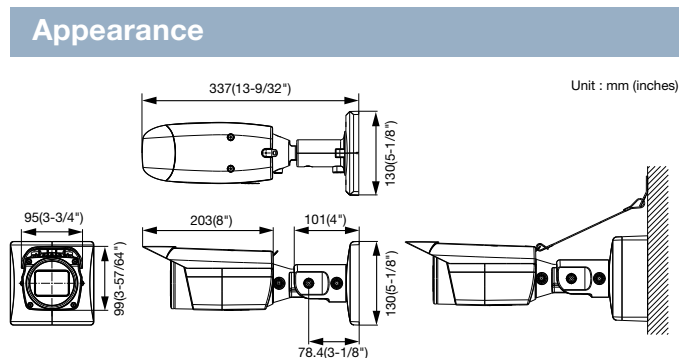
### Applications

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



## Specifications

<b>Camera</b>	Image Sensor	Approx. 1/3 type MOS image sensor
	Minimum Illumination	Color : 0.015 lx, BW : 0.008 lx (F1.7, Maximum shutter : Off (1/30s), AGC : 11) BW : 0 lx (F1.7, Maximum shutter : Off (1/30 s), AGC : 11, when the IR LED is lit) Color : 0.001 lx, BW : 0.0005 lx (F1.7, 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	1/30 Fix to 1/10000 Fix *1/30 Fix to 2/120 Fix is available during 30 fps mode only. *1/60 Fix is available during 60 fps mode only.
	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 (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 and Intelligent Auto : Off)
	Fog compensation	On / Off (Only when Intelligent Auto and Auto contrast adjust : Off)
	Maximum gain (AGC)	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	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
	Intelligent VMD (i-VMD) <sup>3</sup>	Type 4 *optional plug-in software WV-SAE200
	Stabilizer <sup>3</sup>	On / Off (available only in the 30 fps mode)
	Privacy Zone	On / Off (up to 8 zones available)
	Image rotation <sup>4</sup>	0 ° / 90 ° / 180 ° / 270 °
	Camera Title (OSD)	On / Off Up to 20 characters (alphanumeric characters, marks)
	Focus Adjustment	Auto back focus / Manual
<b>Lens</b>	Focal length	9.0 - 21 mm {11/32 inches - 13/16 inches}
	Zoom ratio	2.3 x (Motorized zoom / Motorized focus)
	Angular Field of View	[16 : 9 mode] Horizontal : 14° (TELE) – 34° (WIDE) Vertical : 8° (TELE) – 19° (WIDE) [4 : 3 mode] Horizontal : 12° (TELE) – 28° (WIDE) Vertical : 9° (TELE) – 21° (WIDE)
	Maximum Aperture Ratio	1 : 1.7 (WIDE) – 1 : 3.0 (TELE)
	Focusing Range	2.0 m (78-13/16 inches) – ∞
<b>Adjusting Angle</b>	Ceiling mounting	Horizontal : ±180 ° (PAN rotation part) Vertical : 0 ° to 100 ° (TILT rotation part) Yaw : -190 ° to +100 ° (YAW rotation part)
	Wall mounting	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.
	Camera Control	Brightness, AUX : Open / Close
	Audio	Mic (Line) Input : On / Off Volume adjustment : Low / Middle / High Audio Output : On / Off Volume adjustment : Low / Middle / High
<b>Browser GUI</b>	GUI / Setup Menu Language	English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese
	Network	Network IF : 10Base-T / 100Base-TX, RJ45 connector
<b>Network</b>	Resolution	<b>*2 mega pixel [16 : 9] (30/60 fps)</b> 1,920 x 1,080 / 1,280 x 720 / 640 x 360 / 320 x 180
	H.265/ H.264	JPEG (MJPEG)
	JPEG (MJPEG)	<b>*3 mega pixel [4 : 3] (30 fps)</b> 2,048 x 1,536 <sup>5</sup> / 1,280 x 960 / 800 x 600 / 640 x 480 / 400 x 300 / 320 x 240
	H.265/ H.264 <sup>6</sup>	Transmission Mode
	Transmission Type	Constant bit rate / VBR / Frame rate / Best effort
	Image Quality	Unicast / Multicast
		10 steps



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

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<b>Network</b>	Smart Coding	Smart Facial Coding <sup>3</sup> : On (Smart Facial Coding <sup>3</sup> ) / 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) : 16 kbps / 32 kbps G.711 : 64 kbps AAC-LC <sup>7</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 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 (Option)	H.265 / H.264 recording : 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 SDXC/SDHC/SD Memory Card : Panasonic 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64 GB**, 128 GB**, 256GB** model *SDHC card, ** SDXC card (except miniSD card and microSD card)
	Mobile Terminal Compatibility	iPad, iPhone, Android <sup>TM</sup> mobile terminals
	Alarm Source	3 terminals input, VMD alarm <sup>8</sup> , 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 alarm protocol output
	Monitor Output (for adjustment)	VBS : 1.0 V [p-p] / 75 Ω, composite, Pin jack An NTSC or PAL signal can be outputted from camera
<b>Input/ Output</b>	Audio input	ø3.5 mm stereo mini jack Input impedance: Approx. 2 kΩ (unbalanced) (Applicable microphone : Plug-in power type) Supply voltage : 2.5 V ±0.5 V
	Audio Output	ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. 600 Ω (unbalanced)
	External I/O Terminals	ALARM IN 1 (Black & white input, Auto time adjustment input) (x1), ALARM IN 2 (ALARM OUT) (x1), ALARM IN 3 (AUX OUT) (x1)
	General	Safety : UL (UL60950-1), c-UL (CSA C22.2 No.60950-1), CE, IEC60950-1 EMC : FCC (Part15 ClassA), ICES003 ClassA, EN55032 ClassB, EN55024
<b>General</b>	Power Source and Power Consumption	DC power supply : DC12 V 750 mA, Approx. 9.0 W PoE (IEEE802.3af compliant) Device : DC48 V 195 mA, Approx. 9.4 W (Class 0 device)
	Ambient Operating Temperature	IR LED : On -40 °C to +50 °C (-40 °F to 122 °F), IR LED : Off -40 °C to +60 °C (-40 °F to 140 °F) (Power On range : -30 °C to +60 °C (-22 °F to +140 °F))
	Ambient Operating Humidity	10 to 100 % (no condensation)
	Water and Dust Resistance	IP66, IEC60529 measuring standard compatible, Type 4X(UL50), NEMA 4X compliant
	Shock Resistance	IK10 (IEC 62262)
	Dimensions	130 mm (W) x 130 mm (H) x 337 mm (L)
	* Installing using the base bracket	{5-1/8 inches (W) x 5-1/8 inches (H) x 13-9/32 inches (L)}
	Mass (approx.)	Approx. 1.7 kg (3.75 lbs) When using the adapter box : Approx. 2.2 kg (4.85 lbs)
<b>Finish</b>	Main body	Aluminum die cast, Metallic silver
	Front cover section clear part	Clear polycarbonate resin (ClearSight coating)

\*1 Converted value

\*2 Super Dynamic function is automatically set off on 60 fps mode.

\*3 Stabilizer, Smart Facial Coding, i-VMD can not be used at the same time.

\*4 When "3 mega pixel [4 : 3] (30fps mode)" is selected for "Image capture mode", "90 °" and "270 °" cannot be selected.

\*5 Used by super resolution techniques

\*6 Transmission for 4 streams can be individually set.

\*7 Only use AAC-LC (Advanced Audio Coding - Low Complexity) when recording audio on an SD memory card.

\*8 Including alarms from Plug-in Software

## Optional Accessories

<b>Pole Mount Bracket</b> <b>WV-Q188</b> (Fine silver) <b>WV-Q182</b> (Light gray)		<b>Corner Mount Bracket</b> <b>WV-Q189</b> (Fine silver) <b>WV-Q183</b> (Light gray)	
<b>Plug-in Software for i-VMD</b> <b>WV-SAE200</b> 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			
		Notification sent to the monitoring screen	

### 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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