

## 40x Intelligent Zoom Stabilization iA PTZ Camera

Panasonic WV-X6531N captures the highest quality images automatically even in very challenging and fast-changing surveillance environments. Outstanding Intelligent Zoom Stabilization to increase visibility under blur condition.

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, intelligently reduces bandwidth efficiency of up to 95%\* over H.264 for longer recording and less storage. \*Value in Advanced mode. It depends on the scene.

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

- Long-distance vision with high power 40x zoom lens and Intelligent Zoom Stabilization for pole mounts on roadways
- Sharp and clear image of fast moving vehicles with Intelligent Auto and ClearSight Coating
- Outstanding low light performance in true color with low noise for night time applications
- Super Dynamic 144dB for backlit situation by headlights and shadows on the streets at night
- Environmental durability: IP66, IK10, Long life Pan/Tilt gear mechanism, Wide operating temperature up to 60 °C (140 °F) and Dehumidification device

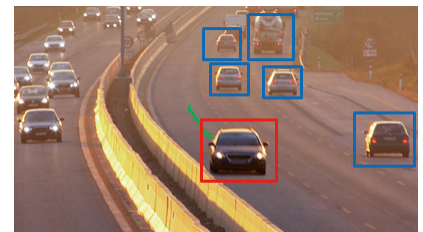
### Extreme bandwidth compression with new Panasonic H.265 Smart Coding

- Longer recording, less storage compared to 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 \*Region of Interest

### Built-in Vehicle Incident Detection\*

- Incident detection: Wrong-way, Stopped vehicle with video analytic technology
- Send alarm to Video Management System and/or Traffic Management System for immediate action
- The function is built-in the camera. No additional server is required.

\*Optional software



Wrong-way detection \*The photo is for illustrative purposes only

### Key Features

- Full-HD 1920x1080 60fps
- Intelligent Zoom Stabilization with 40x optical zoom
- ClearSight Coating
- Durable Pan/Tilt gear mechanism
- iA (intelligent Auto)
- Extreme Super Dynamic 144dB
- Color night vision (0.001 to 0.015 lx)
- IP66, IK10 certified
- Wider operating temperature range  
-50 °C to +60 °C (-58 °F to +140 °F)
- Fiber Optic Media Converter Unit  
(Optional WV-X65F1)

### Industry examples

- Traffic
- Airport
- Safe city
- Stadium
- Railway
- Critical infrastructure

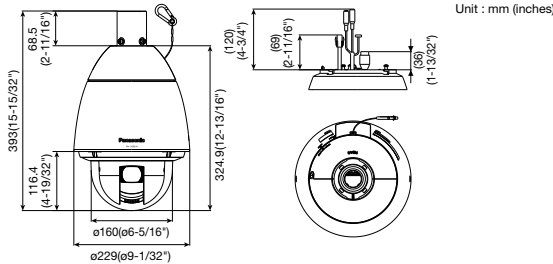


# Specifications

<b>Camera</b>	Image Sensor	Approx. 1/2.8 type MOS image sensor
	Minimum Illumination	Color : 0.015 lx, BW : 0.006 lx (F1.6, Maximum shutter : Off (1/30s), AGC : 11) Color : 0.001 lx, BW : 0.0004 lx (F1.6, Maximum shutter : max. 16/30s, AGC : 11) *1
	Intelligent Auto	On / Off
	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.
	Super Dynamic*2	On / Off, the level can be set in the range of 0 to 31.
	Dynamic Range	144 dB (Super Dynamic : On)
	Image Settings	Gain (AGC), White balance
	Image Compensation	Adaptive black stretch, Back light compensation (BLC), Fog compensation, High light compensation (HLC), Digital noise reduction
	Color/BW (ICR)	Off / On / Auto1 (Normal) / Auto2 (IR Light) / Auto3 (SCC)
	Video Motion Detection (VMD)	On / Off, 4 areas available
	Intelligent VMD (i-VMD) *3	Type4 *optional plug-in software WV-SAE200
	Vehicle Incident Detection*3	Detect "Stopped Vehicle" and "Wrong-way" *optional plug-in software WV-XAE100W
	Stabilizer*3	On / Off (available only in the 30 fps mode)
	Privacy Zone	Filling / Pixelate / Off (up to 32 zones available)
Camera Title (OSD)	On / Off Up to 20 characters (alphanumeric characters, marks)	
<b>Lens</b>	Zoom Ratio	40x Optical 60x HD Extra Optical Zoom (when resolution is 1280x720)
	Digital (electronic) zoom	16x
	Focal length	4.25 mm – 170 mm (5/32 inches – 6-11/16 inches)
	Maximum Aperture Ratio	1 : 1.6 (WIDE) – 1 : 4.95 (TELE)
	Focus range	3.0 m (9 ft 10-1/8 inches) – ∞
	Angular Field of view	[16 : 9 mode] Horizontal : 2.1 ° (TELE) – 65 ° (WIDE) Vertical : 1.2 ° (TELE) – 39 ° (WIDE) [4 : 3 mode] Horizontal : 1.6 ° (TELE) – 51 ° (WIDE) Vertical : 1.2 ° (TELE) – 39 ° (WIDE)
<b>Pan/tilt</b>	Panning Range	360° Endless panning
	Panning Speed	Manual : Approx. 0.065°/s – 120°/s Preset : Up to approx. 300°/s
	Tilting Range	Operational range : -15° – 195° (level – downward – level) Recommended range : 0° – 180° Selectable tilting angle : 10°/5°/3°/0°/4°/-3°/4°/-5°/4°/-10°/4°/-15°/4°
	Tilting Speed	Manual : Approx. 0.065°/s – 120°/s Preset : Up to approx. 300°/s
	Preset Positions	256 positions
	Auto Mode	Auto track*3/ Auto pan/ Preset sequence/ Patrol
<b>Browser GUI</b>	Camera Control	Pan/Tilt, Zoom, Focus, Auto mode, Brightness, Preset, AUX, Rec. on SD, Log, Viewer software
	Audio	Mic (Line) Input : On / Off Volume adjustment : Low / Middle / High Audio Output : On / Off Volume adjustment : Low / Middle / High
	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	*2 mega pixel [16 : 9] (30/60 fps) 1920x1080 / 1280x720 / 640x360 / 320x180
	H.265/ H.264	*3 mega pixel [4 : 3] (30 fps) 2048x1536 / 1280x960 / 800x600 / VGA / 400x300 / QVGA
	JPEG (MJPEG)	*Used by super resolution techniques
	H.265/ H.264*5	Transmission Mode Constant bit rate / VBR / Frame rate / Best effort
JPEG	Transmission Type Unicast / Multicast	
	Image Quality	10 steps

\*1 Converted value \*2 Super Dynamic function is automatically set off on 60 fps mode.  
\*3 Stabilizer, Auto track, Smart Facial Coding, i-VMD, Vehicle Incident Detection can not be used at the same time.  
\*4 If "0 °", "-3 °", "-5 °", "-10 °", or "-15 °" is selected, the area hidden by the camera housing may increase when the tilt angle of the camera is almost level. When "-15 °" is selected for "Tilt Angle", the upper half of images will be hidden.  
\*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 Including alarms from Plug-in Software  
\*8 The audio output can be switched to the monitor output. Refer to the Operating Instructions on the provided CD-ROM for descriptions of how to switch the output.

## Appearance



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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.

<b>Network</b>	Smart Coding	<b>Smart Facial Coding</b> *3 : On(Smart Facial Coding)/ On(AUTO VIQS)/ Off *Smart Facial Coding is only available with Stream(1). <b>GOP(Group of pictures) control</b> : On(Advanced)/ On(Mid)/ On(Low)/ Off *On(Advanced) is only available with H.265.	
	Audio Compression	G.726 (ADPCM) : 16 kbps / 32 kbps, G.711 : 64 kbps, AAC-LC*6 : 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	
	Maximum concurrent access number	Up to 14 users (Depends on network conditions)	
	SDXC/SDHC/SD	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**, 256 GB** model *SDHC card, ** SDXC card (except miniSD card and microSD card)	
	Memory Card (Option)		
	Mobile Terminal Compatibility	iPad / iPhone, Android™ mobile terminals	
	<b>Alarm</b>	Alarm Source	3 terminals input, VMD alarm*7, Command alarm, Audio detection alarm, Auto track alarm
		Alarm Actions	SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notification, Indication on browser, FTP image transfer, Panasonic protocol output
<b>Input/ Output</b>	Audio Input	ø3.5 mm stereo mini jack (monaural input) Input impedance: Approx. 2 kΩ (unbalanced) (Applicable microphone : Plug-in power type) Supply voltage : 4.0 V ±0.5 V	
	Audio Output*8	ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. 600 Ω (unbalanced)	
	External I/O Terminals	ALARM IN1(Alarm input 1/ Black & white input/ Auto time adjustment input), ALARM IN2(Alarm input 2/ ALARM OUT), ALARM IN3(Alarm input 3/ AUX OUT)(x1 for each)	
<b>General</b>	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	AC24 V 3.4 A, Approx. 55 W PoE+ (IEEE802.3at compliant): DC 54V 470 mA, Approx. 25 W Tested PoE Injector (60 W) : DC 54V 1.0 A, Approx. 50 W	
	Ambient Operating Temperature	-50 °C to +60 °C (-58 °F to +140 °F) (AC 24 V / Tested PoE injector (60 W)) -30 °C to +60 °C (-22 °F to +140 °F) (PoE+ device) {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), Type 4X (UL50), NEMA 4X compliant	
	Shock Resistance	IK10 (IEC62262)	
	Dimensions	Maximum ø229 mm × 393 (H) mm (ø9-1/32 inches × 15-15/32 inches (H))	
	Mass (approx.)	Approx. 5.2 kg (11.47 lbs)	
	Finish	Main body : Aluminum die cast, Natural silver Sunshields : ABS+PC resin coating, Natural silver Outer fixing screws : SUS (Corrosion-resistant treatment) Dome cover : Polycarbonate resin (with ClearSight coating (rain wash coating)), Clear	

## Optional Software

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

Plug-in Software for Vehicle Incident Detection  
**WV-XAE100W**

Camera detects vehicle incidents on the road with video analytics technology.

Target Incident	Wrong-way / Stopped vehicle
Number of Lanes	Max. 4 lanes
Detection scene	Max. 256 preset positions

## Optional Accessories

### Fiber Optic Media Converter Unit

**Extension Unit WV-X65F1 (Fine silver)** Fiber Optic Media Converter Unit supports long distance optical networks by converting copper RJ45 to fiber.

	<b>Basic specifications</b>	<b>Support specifications for SFP module</b>		
	Power source	24 V AC(50 Hz/60 Hz)	SFP Port Type	LC type
	Ambient Operating Temperature	-40 °C to +60 °C (-40 °F to 140 °F) (Power On range: -30 to +60 (-22 °F to 140 °F))	Ethernet Speed	100/1000 Mbps
	Ambient Operating Humidity	10 % to 100 % (no condensation)	Supply voltage, current	3.3 V typical, Max. 300 mA
Waterproof	IP66(IEC60529)	SFP Cage	Standard mini-SFP cage (For 6.5 mm pitch SFP)	
Shock resistance	IK10(IEC62262)			

\*Different Color Model WV-S25F1 (Light gray)  
 \*Refer to website for compatible SFP modules. <https://security.panasonic.com/support/info/> -Control No. : C0504>

### Mount Bracket

<b>Ceiling Mount Bracket WV-Q121B</b> 	<b>Wall Mount Bracket WV-Q122A (Fine silver)</b> Different Color Model WV-Q185 (Light gray) 	<b>Pole Mount Bracket WV-Q188 (Fine silver)</b> Different Color Model WV-Q182 (Light gray) (These brackets are used with WV-Q122A or WV-Q185.) 	<b>Corner Mount Bracket WV-Q189 (Fine silver)</b> Different Color Model WV-Q183 (Light gray) (These brackets are used with WV-Q122A or WV-Q185.) 
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• The brackets are available in two colors, Fine silver and Light gray. It is possible to use them in the different color combination.

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