

## Clear visibility of distant objects even in the dark

The Panasonic WV-X6533LN IR-PTZ camera has a powerful 40x optical zoom with infrared light (LED), plus a built in imaging stabilizer enabling Pan/Tilt 360 degree video surveillance up to 350 m under total darkness. Can monitor subjects at long distance range during daytime and also nighttime under zero lux no lighting environment suitable for perimeter surveillance at airports, critical infrastructure, defense, federal & government, manufacturing facilities, and for general city/road surveillance purposes.

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 up to 95%\* more than conventional H.264 for longer recording and less storage.

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

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

- Built-in IR LED to produce a clear monochrome image in 0 lux conditions with 350 m (1150 feet) irradiation distance
- The visible light cut filter makes it possible to focus on subjects even in environments with a mix of infrared and visible light
- Long-distance vision with high power 40x zoom lens and Intelligent Zoom Stabilization with gyroscope
- 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
- Dehumidification and defrosting with the defroster device
- Environmental durability: IP66, IK10, Long life Pan/Tilt gear mechanism

### 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

### 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

- Full-HD 1920x1080 60fps
- Long distance IR illumination
- Intelligent Zoom Stabilization with 40x optical zoom
- ClearSight Coating
- Durable Pan/Tilt gear mechanism
- iA (intelligent Auto)
- Color night vision (0.001 to 0.015 lx)
- IP66, IK10 certified, Defroster
- i-VMD License Bundled
- Fiber Optic Media Converter Unit (Optional WV-X65F1)

### Industry examples

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

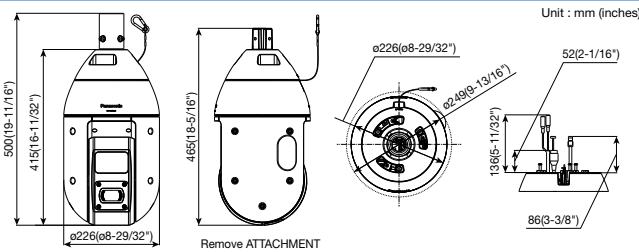


# Specifications

<b>Camera</b>	Image Sensor	Approx. 1/2.8 type CMOS image sensor
	Minimum Illumination	Color : 0.015 lx, BW : 0.006 lx (F1.6, Maximum shutter : Off (1/30s), AGC : 11) BW : 0 lx (F1.6, Maximum shutter : Off (1/30 s), AGC : 11, when the IR LED is lit) Color : 0.001 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 <sup>2</sup>	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 (IR Light Off) / On (IR Light On) / Auto1 (IR Light Off) / Auto2 (IR Light On)
	IR LED Light	High / Middle / Low / Off Maximum irradiation distance 350 m (approx. 1150 ft)(AC 24 V/ Tested PoE injector) 150 m (approx. 500 ft)(PoE+ device)
	Video Motion Detection (VMD)	On / Off, 4 areas available
	Intelligent VMD (i-VMD) <sup>3</sup>	Type4 *Bundled License
	Stabilizer <sup>3</sup>	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	40 x Optical zoom (Motorized zoom / Motorized focus) 60x HD Extra Optical Zoom (when resolution is 1280x720)
	Digital (electronic) zoom	16 x
	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 : 1.9 ° (TELE) – 66 ° (WIDE) Vertical : 1.1 ° (TELE) – 39 ° (WIDE) [4 : 3 mode] Horizontal : 1.4 ° (TELE) – 51 ° (WIDE) Vertical : 1.1 ° (TELE) – 39 ° (WIDE)
<b>Pan/tilt</b>	Panning Range	360° Endless panning
	Panning Speed	Manual : Approx. 0.065°/s – 150°/s Preset : Up to approx. 300°/s
	Tilting Range	Operational range : -30° – +210° Recommended range <sup>4</sup> : 0° – 180°
	Tilting Speed	Manual : Approx. 0.065°/s – 150°/s Preset : Up to approx. 300°/s
	Preset Positions	256 positions
	Auto Mode	Auto track / Auto pan / Preset sequence / Patrol
<b>Browser GUI</b>	Camera Control	Par/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
<b>Network</b>	GUI / Setup Menu Language	English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese
	Network IF	10Base-T / 100Base-TX, RJ45 connector
	Resolution <sup>5</sup>	*[16 : 9] 1920x1080 / 1280x720 / 640x360 / 320x180
	H.265 / H.264	*[4 : 3] 2048x1536 * / 1280x960 / 800x600 / VGA / 400x300 / QVGA
	JPEG (MJPEG)	*Used by super resolution techniques
	H.265 / H.264 <sup>6</sup>	Transmission Mode : Constant bit rate / VBR / Frame rate / Best effort Transmission Type : Unicast / Multicast
JPEG	Image Quality : 10 steps	

\*1 Converted value  
\*2 When 60 fps is selected, the Super Dynamic function is automatically set to off.  
\*3 Stabilizer, Auto track, Smart Facial Coding, i-VMD, can not be used at the same time.  
\*4 If it is out of the recommended range, part of the image may be missing.  
\*5 H.265/H.264 can be selected for each stream.  
\*6 Transmission for 4 streams can be individually set.  
\*7 When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).  
\*8 Including alarms from Plug-in Software  
\*9 The audio output can be switched to the monitor output. Refer to the Operating Instructions on the Panasonic support web site for descriptions of how to switch the output.  
\*10 When using with the IR LED light constantly lit, the upper limit of the operating temperature range is +45°C (+113 °F).

## 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.

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

<b>Network</b>	Smart Coding	<b>Smart Facial Coding</b> <sup>*</sup> : 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(Frame rate control)/ On(Advanced)/ On(Mid)/ On(Low)/ Off *On(Frame rate control) and On(Advanced) are 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	
	Maximum concurrent access number	14 (Number of sessions that can connect to cameras at the same time) *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 <sup>8</sup> , 8 GB <sup>8</sup> , 16 GB <sup>8</sup> , 32 GB <sup>8</sup> , 64 GB <sup>8</sup> , 128 GB <sup>8</sup> , 256 GB <sup>8</sup> model *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 <sup>9</sup> , 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 (Audio input is monaural.) Input impedance: Approx. 2 kΩ (unbalanced) (Applicable microphone : Plug-in power type) Supply voltage : 4.0 V ±0.5 V
Audio Output <sup>9</sup>		ø3.5 mm stereo mini jack (Audio output is monaural.) 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 ClassA, 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(Class4 device) 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)) <sup>10</sup> -30 °C to +60 °C (-22 °F to +140 °F) (PoE+ device) <sup>10</sup> {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 (UL50E), NEMA 4X compliant	
	Shock Resistance	IK10 (IEC62262)	
	Wind Resistance	up to 40 m/s (approx. 89 mph)	
	Dimensions	Maximum ø249 mm x 465 mm (H)(ø9-13/16 inches x 18-5/16 inches (H))	
	Mass (approx.)	Approx. 8.2 kg (18.10 lbs) (including attachment pipe : Approx. 200 g (0.44 lbs) and cable cover.)	
Finish	Main body : Aluminum die cast, Fine silver Outer fixing screws : Stainless steel (Corrosion-resistant treatment) Front Panel : Polycarbonate resin (with ClearSight coating (rain wash coating)), Clear		


## 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

### Fiber Optic Media Converter Unit

Extension Unit <b>WV-X65F1</b> (Fine silver)	Fiber Optic Media Converter Unit supports long distance optical networks by converting copper RJ45 to fiber.	<b>Support specifications for SFP module</b>		
	<b>Basic specifications</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)			
*Refer to website for compatible SFP modules. <a href="https://security.panasonic.com/support/info/">https://security.panasonic.com/support/info/</a> <Control No.: C0504>				

### Mount Bracket

Ceiling Mount Bracket <b>WV-Q121B</b>	Wall Mount Bracket <b>WV-Q122A</b> (Fine silver) Different Color Model <b>WV-Q185</b> (Light gray)	Pole Mount Bracket <b>WV-Q188</b> (Fine silver) Different Color Model <b>WV-Q182</b> (Light gray) (These brackets are used with WV-Q122A or WV-Q185.)	Corner Mount Bracket <b>WV-Q189</b> (Fine silver) Different Color Model <b>WV-Q183</b> (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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