

Full HD 40x PTZ Network 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. By 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 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
- 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

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 1920x1080 up to 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)
- i-VMD License Bundled
- Fiber Optic Media Converter Unit (Optional WV-X65F1)
- Onvif Profile G / S / T

Industry examples

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



Specifications

Camera	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) ¹¹
	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	Max.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) ¹³	Type4 *Bundled License
	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)	
Lens	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)
Pan/tilt	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
	Self Return	10 s/ 20 s/ 30 s/ 1 min/ 2 min/ 3 min/ 5 min/ 10 min/ 20 min/ 30 min/ 60 min
Browser GUI	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
Network	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 JPEG (MJPEG)	*3 mega pixel [4 : 3] (30 fps) 2048x1536 ¹ / 1280x960 / 800x600 / VGA / 400x300 / QVGA *Used by super resolution techniques
	H.265/ H.264 ⁵ JPEG	Transmission Mode Transmission Type Image Quality Constant bit rate / VBR / Frame rate / Best effort Unicast / Multicast 10 steps

Network	Smart Coding	Smart Facial Coding³ : On(Smart Facial Coding)/ On(AUTO VIQS)/ Off *Smart Facial Coding is only available with Stream1). GOP(Group of pictures) control : 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 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 ¹ , 8 GB ¹ , 16 GB ¹ , 32 GB ¹ , 64 GB ¹ , 128 GB ¹ , 256 GB ¹ model *SDHC card, ** SDXC card (except miniSD card and microSD card)
	Mobile Terminal Compatibility	iPad / iPhone, Android TM terminals
	ONVIF Profile	G / S / T
Alarm	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
Input/ Output	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
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
	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)
	Dehumidification Device	Rosahl element
	Water and Dust Resistance	IP66 (IEC60529), Type 4X (UL50), NEMA 4X compliant
	Shock Resistance	IK10 (IEC62262)
	Dimensions	Maximum ø229 mm x 393 (H) mm (ø9-1/32 inches x 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), Clear	

¹ Converted value

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

³ Stabilizer, Auto track, Smart Facial Coding, i-VMD, 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.

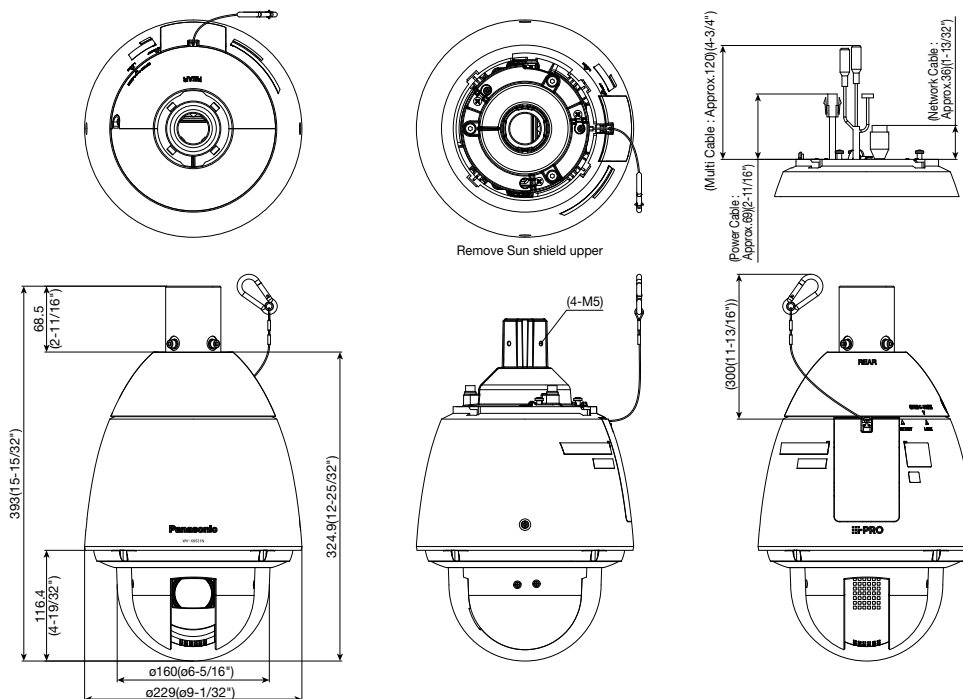
⁵ Transmission for 4 streams can be individually set.

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

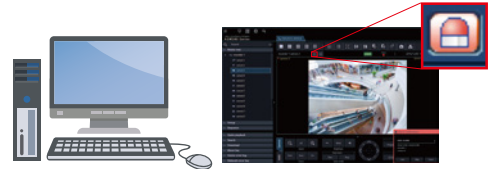


Unit : mm (inches)

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



Notification sent to the monitoring screen

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.

• Basic specifications

Power source	24 V AC(50 Hz/60 Hz)
Ambient Operating Temperature :	-40 °C to +60 °C(-40 °F to 140 °F) (Power On range: -30 to +60 (-22 °F to 140 °F))
Ambient Operating Humidity :	10 % to 100 % (no condensation)
Waterproof	IP66(IEC60529)
Shock resistance	IK10(IEC62262)

*Refer to website for compatible SFP modules. <https://security.panasonic.com/support/info/> <Control No. : C0504>

• Support specifications for SFP module

SFP Port Type	LC type
Ethernet Speed	100/1000 Mbps
Supply voltage, current	3.3 V typical, Max. 300 mA
SFP Cage	Standard mini-SFP cage (For 6.5 mm pitch SFP)

*Different Color Model WV-S25F1 (Light gray)

Mount Bracket

Ceiling surface mount bracket
WV-QCL500-S
 (Silver)



Ceiling Mount Bracket
WV-Q121B
 (Fine silver)



Wall Mount Bracket
WV-Q122A
 (Fine silver)



Pole Mount Bracket
WV-Q188
 (Fine silver)



(These brackets are used with WV-Q122A.)

Corner Mount Bracket
WV-Q189
 (Fine silver)



(These brackets are used with WV-Q122A.)

• Brackets are available in four colors, Fine silver, Light gray, Gray and i-PRO white. It is possible to use them in different color combinations.

Important

- Safety Precaution : Carefully read the Basic 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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• Masses and dimensions are approximate. • Specifications are subject to change without notice.

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