

## 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

<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) <sup>11</sup>
	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	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) <sup>13</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	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 <sup>3</sup> / 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
<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	<b>*2 mega pixel [16 : 9] (30/60 fps)</b> 1920x1080 / 1280x720 / 640x360 / 320x180
	H.265/ H.264 JPEG (MJPEG)	<b>*3 mega pixel [4 : 3] (30 fps)</b> 2048x1536 <sup>1</sup> / 1280x960 / 800x600 / VGA / 400x300 / QVGA *Used by super resolution techniques
	H.265/ H.264 <sup>5</sup> JPEG	Transmission Mode Transmission Type Image Quality Constant bit rate / VBR / Frame rate / Best effort Unicast / Multicast 10 steps

<b>Network</b>	Smart Coding	<b>Smart Facial Coding<sup>3</sup></b> : On(Smart Facial Coding)/ On(AUTO VIQS)/ Off *Smart Facial Coding is only available with Stream1). <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 <sup>6</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	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 <sup>1</sup> , 8 GB <sup>1</sup> , 16 GB <sup>1</sup> , 32 GB <sup>1</sup> , 64 GB <sup>1</sup> , 128 GB <sup>1</sup> , 256 GB <sup>1</sup> model *SDHC card, ** SDXC card (except miniSD card and microSD card)
	Mobile Terminal Compatibility	iPad / iPhone, Android <sup>TM</sup> terminals
	ONVIF Profile	G / S / T
<b>Alarm</b>	Alarm Source	3 terminals input, VMD alarm <sup>7</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 (monaural input) Input impedance: Approx. 2 kΩ (unbalanced) (Applicable microphone : Plug-in power type) Supply voltage : 4.0 V ±0.5 V
	Audio Output <sup>8</sup>	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)
	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	

<sup>1</sup> Converted value

<sup>2</sup> Super Dynamic function is automatically set off on 60 fps mode.

<sup>3</sup> Stabilizer, Auto track, Smart Facial Coding, i-VMD, can not be used at the same time.

<sup>4</sup> 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.

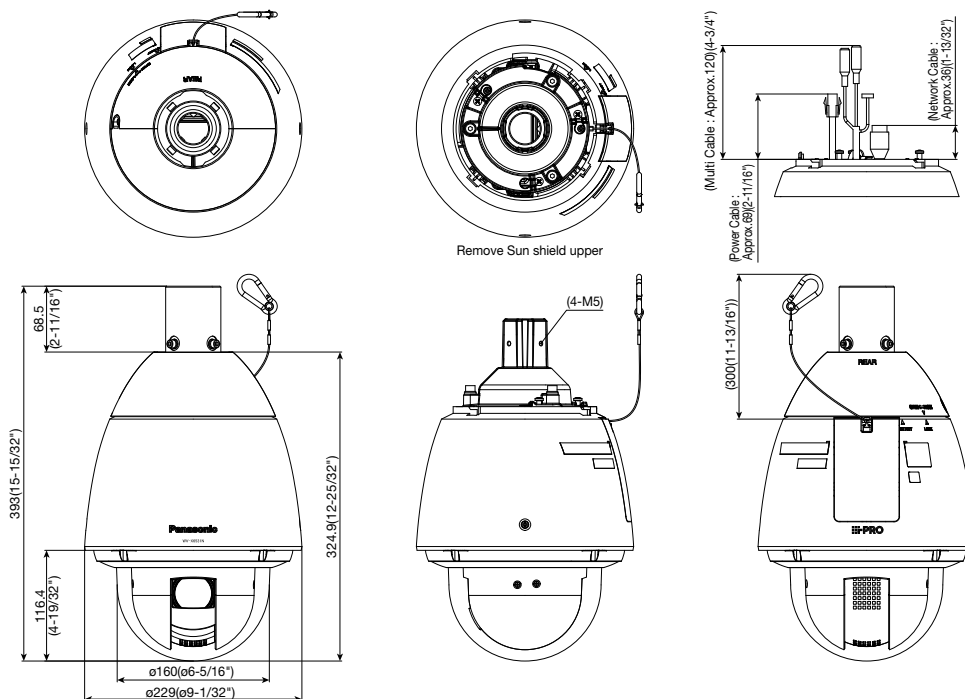
<sup>5</sup> Transmission for 4 streams can be individually set.

<sup>6</sup> When recording audio on an SD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).

<sup>7</sup> Including alarms from Plug-in Software

<sup>8</sup> 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

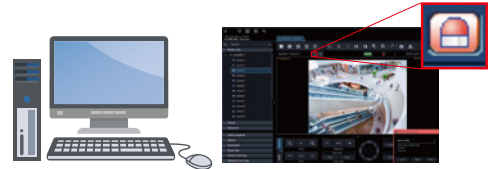


Unit : mm (inches)

## 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 / Other

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)



(This bracket requires WV-Q122A.)

Corner Mount Bracket  
**WV-Q189**  
 (Fine silver)



(This bracket requires 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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