



## HD / 1,280 x 720 Pan-tilt Wireless Network Camera (BL-VT164W)

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### Key Features

- 720p HD images up to 30 fps
- 1.0 Megapixel high sensitivity CMOS Sensor
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by "UniPhier®", Panasonic's proprietary System LSI platform.
- Full frame (Up to 30 fps) transmission at 1,280 x 720 image size
- High sensitivity with Day & Night (Electrical) function: 0.9 lx (Color), 0.6 lx (B/W) at F2.8
- Digital Noise Reduction: 3D-DNR ensures noise reduction in various conditions.
- Progressive scan ensures clear images with less motion blur and no tearing even when the subject is moving.
- Electronic sensitivity enhancement: Auto (Up to 16x) / OFF
- Selectable light control modes: Indoor scene (50 Hz) / Indoor scene (60 Hz) / ELC (maximum exposure time)  
Indoor scene (50 Hz/60Hz): Flicker caused by fluorescent lightning will be automatically compensated.  
ELC (maximum exposure time): The lightning control will be automatically performed by adjusting shutter speed in the range of ELC.
- 1.5x extra zoom under VGA resolution
- 8x digital zoom controlled by browser
- VMD (Video Motion Detection) with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size
- Face detection function detects the position of human face and the information is sent by XML or video stream.
- Privacy Zone can mask up to 2 private areas, such as house windows and entrances/exits.
- Camera title display: Up to 20 alphanumeric characters on the browser
- Alarm sources including VMD and Panasonic alarm command can trigger actions such as FTP image transfer, E-mail notification, Indication on browser, and Panasonic alarm protocol output.
- JPEG Image compression ratio can be changed by alarm so that higher quality image can be provided.
- Prioritized stream control: One of the video streams can be prioritized when multiple recorders or client PCs are accessing the camera so that the recorder or the client PC can maintain the frame rate.
- H.264 max. bit rate/client and Total bit rate control allows flexible network traffic management. Frame rate priority mode controls bit rate and compression ratio to provide the specified frame rate.
- Internet mode: H.264 images can be transmitted over HTTP protocol.
- Multi-language: English / Italian / French / German / Spanish / Russian / Chinese / Japanese
- IPv4/IPv6 protocol supported
- Supports SSL, DDNS (viewnetcam, RFC2136)
- Still images (JPEG) can be viewed on mobile phones via Internet.
- Onvif compliant model
- Low profile design for discrete installation
- Pan/tilt and Preset Map Shot function realizes wide range monitoring..(Horizontal angle:139° Vertical angle 76°)
- Easy installation: Easy to adjust directions.
- Interactive communication with audio: By using the audio output connector and the microphone in connector, receiving audio from the cameras on a PC and transmitting audio from the PC to the cameras is available.
- Smartphone monitoring : Direct camera control from smartphone
- Wireless LAN function (IEEE802.11 n/b/g) : Camera images can be monitored over a wireless router.(WV-VT164W)
- WPS (Wi-Fi Protected Setup) function : WPS enables the camera to automatically obtain the connection configuration information and the security configuration information of the wireless router. WPS can be configured by pressing the WIRELESS button (WPS indicator) (PBC method) or entering an 8 digit pin code (Pin code method).(WV-VT164W)
- Built-in Body Heat Sensor (Pyroelectric infrared sensor)
- PC software recording (BB-HNP17: Network Camera Recorder with Viewer Software)

### Standard Accessories

- |  |       |                            |       |
|--|-------|----------------------------|-------|
| • AC Adaptor .....                           | 1 pc. | • Installation Guide ..... | 1 pc. |
| • Safety Wire .....                          | 1 pc. | • CD-ROM*1 .....           | 1 pc. |
| • Configure the settings of the camera ..... | 1 pc. |                            |       |

\*1 The CD-ROM contains the operating instructions and different kinds of tool software programs.

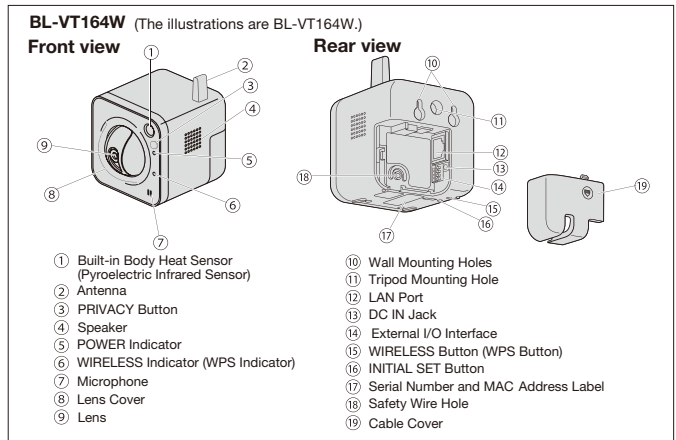
# Specifications

	BL-VT164W	BL-VT164			
<b>Camera</b>	Image Sensor	1/4 type CMOS Sensor			
	Effective Pixels	Approx. 1 megapixels			
	Scanning Mode	Progressive			
	Scanning Area	3.89 mm (H) x 2.43 mm (V) (5/32 inches (H) x 3/32 inches (V))			
	Minimum Illumination	Color: 0.9 lx (F2.8, Auto slow shutter: Off (1/30s), Gain: On(High)) Color: 0.06 lx (F2.8, Auto slow shutter: Max. 16/30s, Gain: On(High)) <sup>*1</sup> BW: 0.6 lx (F2.8, Auto slow shutter: Off (1/30s), Gain: On(High)) BW: 0.04 lx (F2.8, Auto slow shutter: Off (16/30s), Gain: On(High)) <sup>*1</sup>			
	White Balance	AWC (2,000 - 10,000 K), ATW1 (2,700 - 6,000 K), ATW2 (2,000 - 6,000 K)			
	Light Control Mode	Indoor scene (50 Hz / 60 Hz) / ELC			
	Shutter Speed	ELC (1/30 s), ELC (3/100 s), ELC (3/120 s), ELC (2/100 s), ELC (2/120 s), ELC (1/100 s), ELC (1/120 s), ELC (1/250 s), ELC (1/500 s), ELC (1/1,000 s), ELC (1/2,000 s), ELC (1/4,000 s), ELC (1/10,000 s)			
	Adaptive Black Stretch	ON / OFF			
	AGC	ON (HIGH) / ON (MID) / ON (LOW) / OFF			
	Electronic Sensitivity UP Day & Night (electrical)	OFF / AUTO			
	Digital Noise Reduction	HIGH / LOW			
	Video Motion Detection	ON / OFF (available at each preset)			
	Privacy Zone	ON / OFF (up to 2 zones available)			
	Camera Title (OSD)	Up to 20 characters (alphanumeric characters, marks) , On/Off			
	Focal Length	3.6 mm			
	Zoom Ratio	Extra zoom: 1.5x (at VGA resolution)			
	Angular Field of View	Horizontal: 57°, Vertical: 34°			
Maximum Aperture Ratio	1 : 2.8				
Focusing Range	0.4 m - ∞				
<b>Pan and Tilt</b>	Panning Range	-41° ~ +41°			
	Panning Speed	Manual: Approx. 0.5 °/s - 50 °/s, Preset: Up to approx. 50 °/s			
	Tilting Range	-32° to +10°			
	Tilting Speed	Manual: Approx. 0.5 °/s - 50 °/s, Preset: Up to approx. 50 °/s			
	Number of Preset Positions	64			
	PTZ Position Display	ON / OFF			
	Self Return	10 s / 20 s / 30 s / 1 min / 2 min / 3 min / 5 min / 10 min / 20 min / 30 min / 60 min			
	Map Shot	Preset map-shot			
	<b>Wireless</b> (BL-VT164W / BL-VT164WE / BL-VT164WU only)	Antenna	1x1 (Diversity)		
		Transmission method	SISO (Single Input/Single Output)-OFDM, OFDM, DSSS		
Frequency range (center frequency) / Channel		BL-VT164W: 2.412 GHz - 2.482 GHz (1 - 11ch) BL-VT164WE: 2.412 GHz - 2.472 GHz (1 - 13ch) BL-VT164WU: 2.412 GHz - 2.472 GHz (1 - 13ch)			
Data transfer rate: <sup>*2</sup>		IEEE802.11n: 6.5-72.2 Mbps IEEE802.11g: 6-54 Mbps IEEE802.11b: 1-11 Mbps			
Access method		Infrastructure mode			
Authentication method		Open System			
Security: <sup>*3</sup>		WPA/WPA2-PSK (TKIP/AES) WEP (64 bit/128 bit)			
WPS		PBC method (push button method), PIN method (PIN code method)			
<b>Browser GUI</b>		Camera Control	Brightness, AUX ON / OFF		
		Display Mode	Spot, Quad: Image from 16 cameras can be displayed in 4 different Quad screens or 16 split screen (JPEG only), 20 characters camera title available.		
	Zoom	extra zoom(1x-1.5x) and the electronic zoom (higher zoom factors, up to 12x).			
	Camera Title	Up to 20 alphanumeric characters			
	Clock Display	Time: 12H/24H, Date: 5 formats on the browser, Summer time (Manual)			
	Alarm Control	Reset			
	One Shot Capture	A still picture will be displayed on a newly opened window.			
	Audio	Mic Input: ON / OFF Volume adjustment: Low / Middle / High Audio Output: ON / OFF Volume adjustment: Low / Middle / High			
	GUI/Setup Menu Language	English, Japanese, Italian, French, German, Spanish, Chinese, Russian			
	System Log	Up to 100 (Internal), error logs			
	Supported OS <sup>*4-5</sup>	Microsoft® Windows® 7, Microsoft® Windows Vista®, Microsoft® Windows® XP SP3			
	Supported Browser	Windows® Internet Explorer® 9.0 (32 bit), Windows® Internet Explorer® 8.0 (32 bit), Windows® Internet Explorer® 7.0 (32 bit), Microsoft® Internet Explorer® 6.0 SP3			
	<b>Network</b>	Network IF	10Base-T / 100Base-TX, RJ-45 connector (female)		
		Image Resolution <sup>*6</sup>	Aspect ratio: [4:3]	H.264: SVGA(800 x 600) / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG: SVGA(800 x 600) / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps	
			Aspect ratio: [16:9]	H.264: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps JPEG: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps	
H.264		Transmission Mode	Constant bitrate / Frame rate / Best effort		
		Frame Rate	1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 fps		
		Bit Rate/Client	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 / 4,096 / 8,192 kbps		
Image Quality		Refresh Interval	LOW / NORMAL / FINE		
		Transmission Type	UNICAST / MULTICAST		
		Transmission Type	PULL / PUSH		
JPEG		Image Quality	10 steps		
Refresh Interval		0.1 fps ~ 30 fps			
Transmission Type		PULL / PUSH			
Audio Compression		G.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps			
Audio Mode		OFF / Mic input / Audio output / Interactive (Half duplex) / Interactive (Full duplex)			
Authentication for Audio		Level 1 only / Level 2 higher / All users			
Total Bit Rate		64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimited			
Supported Protocol		IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, MLD, ICMP, ARP IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTCP, RTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP			
FTP Client		Alarm image transmission, FTP periodic transmission			
No. of Simultaneous Users	Up to 14 users (Depends on network conditions)				
Face Detection	ON / OFF (with XML notification)				
Cellular Phone Compatibility	JPEG image, panning/tilting/zoom/Privacy control, AUX control (by access level)				
Mobile Terminal Compatibility <sup>*7</sup>	iPad, iPhone, iPod touch (iOS 4.2.1 or later), Android™ mobile terminals				
<b>Alarm</b>	Alarm Source	VMD, Command alarm			
	Alarm Actions	E-mail notification, Indication on browser, FTP image transfer, Panasonic protocol output			
	Schedule	VMD			
<b>Body heat sensor</b>	Sensor detection method	pyroelectric infrared sensor			
	Sensitivity settings	Off/ High/ Normal/ Low/ Extra low			
	Sensor detection range	About 5 m (with the temperature at 20°C and Normal sensitivity) Horizontal: 28°, Vertical: 71°			
<b>Input/ Output</b>	Microphone/Line Input	Internal microphone			
	Audio Output	Internal speaker			
	External I/O Terminals	ALARM IN 1, ALARM IN 2/ ALARM OUT, ALARM IN 3/ AUX OUT, GND			

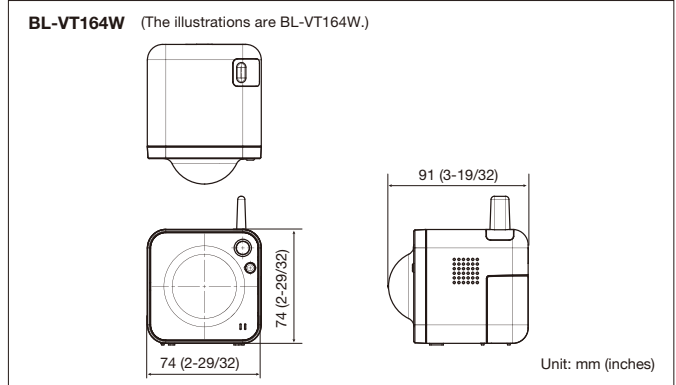
General	BL-VT164W	BL-VT164
Safety/ EMC Standard	WW-VT164W: <Safety> UL60950-1 Ed.2, C22.2 NO.60950-1 Ed.2 <EMC> FCC Part15 ClassB <Wireless> FCC Part15C	WW-VT164: <Safety> UL60950-1 Ed.2, C22.2 NO.60950-1 Ed.2 <EMC> FCC Part15 ClassB, ICES-003 ClassB
	WW-VT164WE/WW-VT164WU: <Safety> IEC60950-1 Ed.2 <EMC> EN55022 ClassB, EN55024 <Wireless> EN300 328	WW-VT164E/WW-VT164U: <Safety> IEC60950-1 Ed.2 <EMC> EN55022 ClassB, EN55024
Power Source and Power Consumption	9 V DC (Use only with Panasonic AC adapter) BL-VT164W: max. 4.8 W (120 V AC/ 60 Hz) BL-VT164WE: max. 4.8 W (230 V AC/ 50 Hz) BL-VT164WU: max. 4.8 W (230 V AC/ 50 Hz)	9 V DC (Use only with Panasonic AC adapter) BL-VT164: max. 3.7 W (120 V AC/ 60 Hz) BL-VT164E: max. 3.7 W (230 V AC/ 50 Hz) BL-VT164U: max. 3.7 W (230 V AC/ 50 Hz)
Ambient Operating Temperature	0 °C ~ 40 °C (32 °F ~ 104 °F)	
Ambient Operating Humidity	Less than 90 % (no condensation)	
Dimensions	74 mm (W) x 74 mm (H) x 91 mm (D) (2-29/32 inches (W) x 2-29/32 inches (H) x 3-19/32 inches (D)) (excluding projection)	
Mass (approx.)	Approx. 230 g (0.5071 lbs)	
Finish	Main body: ABS resin, white Dome section: Clear polycarbonate resin	

- \*1 Converted value
- \*2 The actual line speed may be different depending on the network environment and the wireless devices connected.
- \*3 Depending on the wireless router (wireless access point) used, connections may not possible between the camera and the wireless router.  
When connecting with 802.11n, select WPA-PSK (AES) or WPA2-PSK (AES) for security.
- \*4 Refer to "Notes on Windows Vista® / Windows® 7" on the provided CD-ROM for further information about system requirements for a PC and precautions when using Microsoft® Windows® 7 or Microsoft® Windows Vista®.
- \*5 When using IPv6 for communication, use Microsoft® Windows® 7 or Microsoft® Windows Vista®.
- \*6 Transmission for 2 streams can be individually set in the same compression method.
- \*7 For further information about compatible devices, refer to our website (<http://panasonic.net/pss/security/support/info.html>).

## Part Names and Functions



## Appearance



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### Important

- Safety Precaution: carefully read the operating instructions and installation manual before using this product.
- Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.

- Masses and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.

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Printed in Japan (2A-091A)