



### HD / 1,280 x 720 H.264 Wireless Network Camera (BL-VP104W) HD / 1,280 x 720 H.264 Network Camera (BL-VP104)

#### 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 at VGA resolution
- 4x digital zoom controlled by browser
- VMD (Video Motion Detection) with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size
- 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
- Smartphone monitoring : Direct camera control from smartphone
- Wireless LAN function (IEEE802.11 n/b/g) : Camera images can be monitored over a wireless router. (BL-VP104W)
- 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). (BL-VP104W)
- PC software recording (BB-HNP17: Network Camera Recorder with Viewer Software)

#### Standard Accessories

- |  |       |                             |       |
|--|-------|-----------------------------|-------|
| • Flexible Stand .....                       | 1 pc. | • Installation Guide .....  | 1 pc. |
| • AC Adaptor .....                           | 1 pc. | • CD-ROM <sup>1</sup> ..... | 1 pc. |
| • Configure the settings of the camera ..... | 1 pc. |                             |       |

<sup>1</sup>The CD-ROM contains the operating instructions and different kinds of tool software programs.

## Specifications

		BL-VP104W	BL-VP104		
<b>Camera</b>	Image Sensor	1/4 type CMOS Sensor			
	Effective Pixels	Approx. 1 megapixel			
	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)) <sup>1</sup> 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	OFF (1/30 s), Max. 2/30 s, Max. 4/30 s, Max. 6/30 s, Max. 10/30 s, Max. 16/30 s			
	Day & Night (electrical)	OFF / AUTO			
	Digital Noise Reduction	HIGH / LOW			
	Video Motion Detection	ON / OFF (4 areas available)			
	Privacy Zone	ON / OFF (up to 2 zones available)			
Camera Title (OSD)	Up to 20 characters (alphanumeric characters, marks), On/Off				
<b>Lens</b>	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>Wireless</b> (BL-VP104W/ BL-VP104WE/ BL-VP104WU only)	Antenna	1x1 (Diversity)			
	Transmission method	SISO (Single Input/ Single Output) -OFDM, OFDM, DSSS			
	Frequency range	BL-VP104W: 2.412 GHz - 2.462 GHz (1 - 11ch) BL-VP104WE: 2.412 GHz - 2.472 GHz (1 - 13ch) BL-VP104WU: 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)			
	Camera Control	Brightness			
	<b>Browser GUI</b>	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 6x).			
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.			
GUI/Setup Menu Language		English, Italian, French, German, Spanish, Russian, Chinese, Japanese			
System Log		Up to 100 (Internal), error logs			
Supported OS <sup>4,5</sup>		Microsoft® Windows® 8, Microsoft® Windows® 7, Microsoft® Windows Vista®, Microsoft® Windows® XP SP3			
Supported Browser		Windows® Internet Explorer® 10.0 (32 bit), 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	
	Refresh Interval	Image Quality	LOW / NORMAL / FINE		
		Refresh Interval	1 fps - 30 fps		
	JPEG	Transmission Type	UNICAST / MULTICAST		
		Refresh Interval	10 steps		
	Supported Protocol	Image Quality	0.1 fps - 30 fps		
Transmission Type		PULL / PUSH			
FTP Client	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, RTP/RTCP, FTP, 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)			
	Cellular Phone Compatibility	JPEG image			
	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			

General	BL-VP104W	BL-VP104
Safety/ EMC Standard	BL-VP104W: <Safety> UL60950-1 Ed.2, C22.2 NO.60950-1 Ed.2 <EMC> FCC Part15 ClassB <Wireless> FCC Part15C	BL-VP104: <Safety> UL60950-1 Ed.2, C22.2 NO.60950-1 Ed.2 <EMC> FCC Part15 ClassB, ICES-003 ClassB
Power Source and Power Consumption	BL-VP104WE/BL-VP104WU: <Safety> IEC60950-1 Ed.2 <EMC> EN55022 ClassB, EN55024 <Wireless> EN300 328	BL-VP104E/BL-VP104U: <Safety> IEC60950-1 Ed.2 <EMC> EN55022 ClassB, EN55024
Ambient Operating Temperature	6.5 V DC (Use only with Panasonic AC adapter) BL-VP104W: max. 3.5W (120 V AC/ 60 Hz) BL-VP104WE: max. 3.5 W (230 V AC/ 50 Hz) BL-VP104WU: max. 3.5 W (230 V AC/ 50 Hz)	
Ambient Operating Humidity	0 °C - 40 °C (32 °F - 104 °F)	
Dimensions	Less than 90 % (no condensation)	
Mass (approx.)	70 mm (W) x 70 mm (H) x 25.4 mm (D) [2-3/4 inches (W) x 2-3/4 inches (H) x 1 inch (D)] (excluding projection)	
Finish	Approx. 80 g [0.18 lbs]   Approx. 75 g [0.17 lbs] Main body: ABS resin, white	

<sup>1</sup> Converted value

<sup>2</sup> The actual line speed may be different depending on the network environment and the wireless devices connected.

<sup>3</sup> 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.

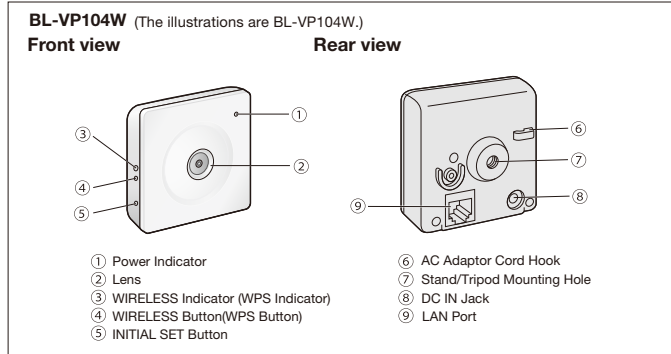
<sup>4</sup> Refer to "Notes on Windows Vista® / Windows® 7 / Windows® 8" on the provided CD-ROM for further information about system requirements for a PC and precautions when using Microsoft® Windows® 8 or Microsoft® Windows® 7 or Microsoft® Windows Vista®.

<sup>5</sup> When using IPv6 for communication, use Microsoft® Windows® 8 or Microsoft® Windows® 7 or Microsoft® Windows Vista®.

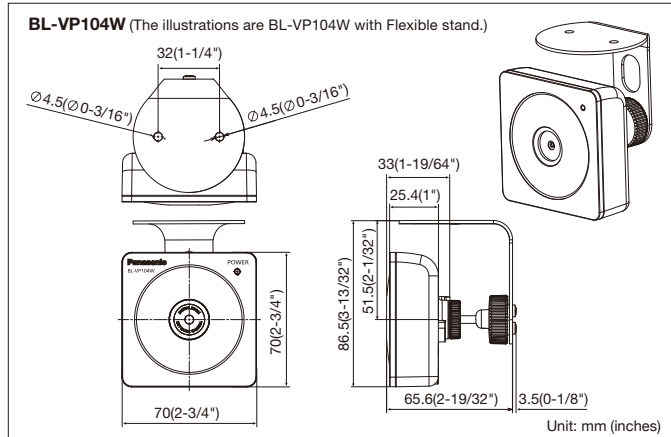
<sup>6</sup> Transmission for 2 streams can be individually set in the same compression method.

<sup>7</sup> For further information about compatible devices, refer to our website (<http://security.panasonic.com/pss/security/support/info.html>).

## Part Names and Functions



## Appearance



### Trademarks and registered trademarks

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### Important

- Safety Precaution: Carefully read the operating instructions and installation manual 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.
- These products may be subject to export control regulations.

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