Panasonic
BUSINESS

Full HD Rugged Mobile Network Camera
WV-SBV131M
HD Rugged Mobile Network Camera
WV-SBV111M

i-PRO
SmartHD

ONVIF | S G

VIQS — Variable Image Quality on Specified area | H.264 JPEG | FULL HD Full High Definition 1080/30p (WV-SBV131M) | HD High Definition 720/30p (WV-SBV111M) | day/night | Vandal Resistant | HLC | Fog sand Compensation | IP66 standard | IP6K9K

Full HD / 1,920 x 1,080 H.264 Full HD Rugged Mobile Network Camera (WV-SBV131M)
HD / 1,280 x 720 H.264 HD Rugged Mobile Network Camera (WV-SBV111M)

Key Features

- 1080p Full HD images up to 30 fps (WV-SBV131M)
- 720p HD images up to 30 fps (WV-SBV111M)
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording.
- *Wide Dynamic Range* and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- **Smart coding Technology :**
  Group of Pictures (GOP) control function removes unnecessary information from the frame for realizing efficient encoding.
  Auto VIQS (Variable Image Quality on Specified area) function recognizes the no movement area in a video automatically and lowering the resolution of it to reduce the data size.
  With the latest bit rate reducing technology, **GOP control, Auto VIQS, 3D-MNR** (Multi process Noise Reduction) and **FDF** (Frequency Divided Filter), the network bandwidth and the disk space of recorder can be saved.
- High sensitivity with Day/Night (Electrical) function:
  0.1 lx (Color), 0.06 lx (B/W) at F2.2 (WV-SBV131M)
  0.04 lx (Color), 0.03 lx (B/W) at F2.2 (WV-SBV111M)
- **VIQS** (Variable Image Quality on Specified area) technology allows the designated **eight areas** to retain higher image quality while the excluded area will have a decreased image quality, which enables to use lower image file size and bit rate.
- Digital Noise Reduction :
  3D-MNR (Multi process Noise Reduction) ensures noise reduction in various conditions and achieves a low bit rate under low illumination.
- **FDF (Frequency Divided Filter)** : Removing fine noise generated under low illumination to achieve a low bit rate.
- 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
- Light control modes:
  ELC (maximum exposure time) :
  The lightning control will be automatically performed by adjusting shutter speed in the range of ELC.
- 2x, 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 8 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.
- SDXC/SDHC/SD Memory card slot for manual recording (H.264 / JPEG), alarm recording (H.264 / JPEG) and backup upon network failure (JPEG)
- **Fog compensation function** equipped as standard.
- **HLC (High Light Compensation)** technology reduces strong light sources such as vehicle headlights to prevent camera being blinded.
- 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 / Portuguese / 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
- "Railway applications – Electronics equipment used on rolling stock" compatible with **EN50155-T3**, EN50121, ECE-R10, EN45545, EN50498
- Wide coverage
  WV-SBV131M [16 : 9 mode] Horizontal: 109 ° Vertical: 73 °
  WV-SBV111M [4 : 3 mode] Horizontal: 104 ° Vertical: 85 °
- The camera conforms to the IP66, Type 4X (UL50) and **IP6K9K**, is compliant with NEMA 4X ratings, and provides high dust resistance and waterproof performance.
- Achieves high-level vibration resistance with EN50155 and **MIL-STD-810G** compliance
- Adoption of a scratch resistant dome cover with a compact and sleek design is optimal for cameras installed on the outside of a vehicle.
- Vandal resistant mechanism for high reliability

Specifications

Camera	Image Sensor	1/3 type MOS image sensor
	Scanning Mode	Progressive
	Scanning Area — WV-SBV131M	5.28 mm (H) x 3.30 mm (V) {7/32 inches (H) x 1/8 inches (V)}
	Scanning Area — WV-SBV111M	4.86 mm (H) x 3.65 mm (V) {3/16 inches (H) x 5/32 inches (V)}
	Minimum Illumination — WV-SBV131M	Color: 0.1 lx (F2.2, Maximum shutter : Off (1/30s), AGC : High)
		0.007 lx (F2.2, Maximum shutter : Max. 16/30s, AGC : High) [1]
		BW: 0.06 lx (F2.2, Maximum shutter : Off (1/30s), AGC : High)
		0.004 lx (F2.2, Maximum shutter : Max. 16/30s, AGC : High) [1]
	Minimum Illumination — WV-SBV111M	Color: 0.04 lx (F2.2, Maximum shutter : Off (1/30s), AGC : High)
		0.003 lx (F2.2, Maximum shutter : Max. 16/30s, AGC : High) [1]
		BW: 0.03 lx (F2.2, Maximum shutter : Off (1/30s), AGC : High)
		0.002 lx (F2.2, Maximum shutter : Max. 16/30s, AGC : High) [1]
	White Balance	AWC (2,000 - 10,000 K), ATW1 (2,700 - 6,000 K), ATW2 (2,000 - 6,000 K)
	Light Control Mode	ELC / Indoor scene 50 Hz / Indoor scene 60 Hz
	Wide dynamic range	On / Off
	Adaptive Black Stretch	On / Off (only when Wide dynamic range : Off)
	Fog compensation	On / Off (only when Wide dynamic range : Off)
	High light compensation (HLC)	On / Off (only when Wide dynamic range / Back light compensation (BLC): Off)
	AGC	On (High) / On (Mid) / On (Low) / Off
	Maximum shutter	max. 1/10,000 s, max. 1/4,000 s, max. 1/2,000 s, max. 1/1,000 s, max. 1/500 s, max. 1/250 s, max. 1/120 s, max. 1/100 s, max. 2/120 s, max. 2/100 s, max. 3/120 s, max. 3/100 s, max. 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 8 zones available)
	VIQS	On / Off (Max. 8 locations)
	Camera Title (OSD)	Up to 20 characters (alphanumeric characters, marks), On / Off
	Focus Adjustment	MANUAL
Lens	Focal Length	1.95 mm {1/16 inches}
	Digital (electronic) zoom	Choose from 3 levels of x1, x2, x4
	Zoom ratio	x1
		WV-SBV131M : Extra zoom x3 (16 : 9 mode) / x2.5 (4 : 3 mode)
		WV-SBV111M : Extra zoom x2
	Angular Field of View — WV-SBV131M	[16 : 9 mode] Horizontal : 109 ° Vertical : 73 °
		[4 : 3 mode] Horizontal : 97 ° Vertical : 79 °
	Angular Field of View — WV-SBV111M	[16 : 9 mode] Horizontal : 104 ° Vertical : 69 °
		[4 : 3 mode] Horizontal : 104 ° Vertical : 85 °
	F Number	F2.2
	Focus Distance	0.5 m - ∞
Adjusting Angle		Horizontal : ±170 °, Vertical : ±90 °
		Image tilt adjustment range : -170 ° (Left) to +170 ° (Right)
Browser GUI	Camera Control	Brightness
	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.
	Camera Title	Up to 20 alphanumeric characters
	Clock Display	Time : 12H/24H
		Date : 5 formats on the browser
		Summer time (Manual)
	One Shot Capture	A still picture will be displayed on a newly opened window.
	SD Memory Data Download	Still or motion Images recorded in the SDXC/SDHC/SD memory card can be downloaded.
	GUI/Setup Menu Language	English, Italian, French, German, Spanish, Portuguese, Chinese, Russian, Japanese
	System Log	Up to 100 (Internal), Up to 4,000 (SDXC/SDHC/SD memory when the recording format is set to JPEG.) error logs
	Supported OS [2] [3]	Microsoft® Windows® 10, Microsoft® Windows® 8.1, Microsoft® Windows® 8, Microsoft® Windows® 7
	Supported Browser	Windows® Internet Explorer® 11 (32 bit)
		Windows® Internet Explorer® 10 (32 bit)
		Windows® Internet Explorer® 9 (32 bit)
		Windows® Internet Explorer® 8 (32 bit)
Network	Network IF	10Base-T / 100Base-TX, M12 connector (female)
	Image Resolution — WV-SBV131M	**•2 mega pixel [16 : 9]**
		H.264 (1)(2) / JPEG (1)(2)(3)
		1,920 x 1,080 / 1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90
		H.264 (3)(4)
		1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90
		•2 mega pixel [4 : 3]
		H.264 (1)(2) / JPEG (1)(2)(3)
		1,600 x 1,200 / 1,280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA / 160 x 120
		H.264 (3)(4)
		1,280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA / 160 x 120
		•3 mega pixel [4 : 3] * Used by super resolution techniques
		H.264 (1)(2) / JPEG (1)(2)(3)
		2,048 x 1,536 / 1,280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA / 160 x 120
		H.264 (3)(4)
		1,280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA / 160 x 120
	Image Resolution — WV-SBV111M	**•1.3 mega pixel [16 : 9]**
		H.264(1)(2)(3)(4) / JPEG (1)(2)(3)
		1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90
		•1.3 mega pixel [4 : 3]
		H.264(1)(2)(3)(4) / JPEG (1)(2)(3)
		1,280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA / 160 x 120
	H.264 [4] Transmission Mode	Constant bit rate / Variable bit rate / Framerate priority / Best effort / Advanced VBR
	H.264 [4] Frame Rate	1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 fps

Network	H.264 [4]	Bit Rate/ Client	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 / 4,096 / 6144* / 8,192* / 10,240* / 12,288* / 14,336* / 16,384* / 20,480* / 24,576* / 30,720* / 40,960 kbps*
			* The available range of the H.264 bit rate varies depending on the setting selected for "image capture size".
		Image Quality	<When Constant bit rate or Best effort is selected> Low / Normal / Fine
			<When Variable bit rate is selected> 0 SUPER FINE /1 FINE /2 / 3 / 4 / 5 NORMAL / 6 / 7 / 8 / 9LOW
		Smart Coding mode	On (Low / Mid / High) / Off (Only when "Variable bit rate" is selected)
		Transmission Type	Unicast / Multicast
	JPEG	Image Quality	10 steps
		Refresh Interval	0.1 fps - 30 fps
		Transmission Type	Pull / Push
	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, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP,ARP
	FTP Client		Alarm image transmission, FTP periodic transmission (When the FTP transmission is failed, backup on an optional SDXC/SDHC/SD memory card is available.)
	No. of Simultaneous Users		Up to 14 users (Depends on network conditions)
	SDXC/SDHC/SD Memory Card(Option)		Manufactured by Panasonic (except miniSD card and microSD card) SDXC memory card : 64 GB, 128 GB SDHC memory card : 4 GB, 8 GB, 16 GB, 32 GB SD memory card : 256 MB, 512 MB, 1 GB, 2 GB
	Cellular Phone Compatibility		JPEG image
	Mobile Terminal Compatibility		iPad, iPhone, iPod touch(iOS 4.2.1 or later) , Android™ mobile terminals
Alarm	Alarm Source		VMD, Command alarm
	Alarm Actions		SDXC/SDHC/SD memory recording, E-mail notification, Indication on browser, FTP image transfer, Panasonic protocol output
	Alarm Log		With SDXC/SDHC/SD memory card: 5,000 logs, without SDXC/SDHC/SD memory card: 1,000 logs
	Schedule		VMD
General	Safety/EMC Standard		<Safety> UL (UL60950-1), C-UL (CAN/CSA C22.2 No.60950-1), CE, IEC60950-1 <EMC> FCC Part15 ClassA, ICES003 ClassA, EN55022 ClassB, EN55024
	Power Source and Power Consumption		PoE (IEEE802.3af compliant) / PoE (Alternative A) : 48 V DC : 80 mA / Approx.3.8 W (Class 2 device)
	Ambient Operating Temperature		-40 °C to +60 °C {-40 °F to 140 °F} (Power On range : -30 °C to +60 °C {-22 °F to 140 °F})
	Ambient Operating Humidity		10 % to 90 % (no condensation)
	Impact Protection		Compliant with IK10 (IEC 62262)
	Water and Dust Resistance		IP66 (IEC60529), IP6K9K, Type 4X (UL50), NEMA 4X compliant [5]
	Railway Application		EN50155-T3, EN50121, ECE-R10, EN45545, EN50498
	Dimensions		100 mm {3-15/16 inches} (W), 80 mm {3-5/32 inches} (H), 161 mm {6-11/32 inches} (D)
	Mass (approx.)		Approx. 750 g {1.65 lbs}
	Finish		Main body : Aluminum die cast, Light gray Dome cover : Polycarbonate resin, Clear (with hard coating)
	Others		Tamper-resistant dome cover [6]

[1] Converted value

[2] Refer to "Notes on Windows® 7 / Windows® 8 / Windows® 8.1 / Windows® 10" on the provided CD-ROM for further information about system requirements for a PC and precautions when using Microsoft® Windows® 10 or Microsoft® Windows® 8.1 or Microsoft® Windows® 8 or Microsoft® Windows® 7.
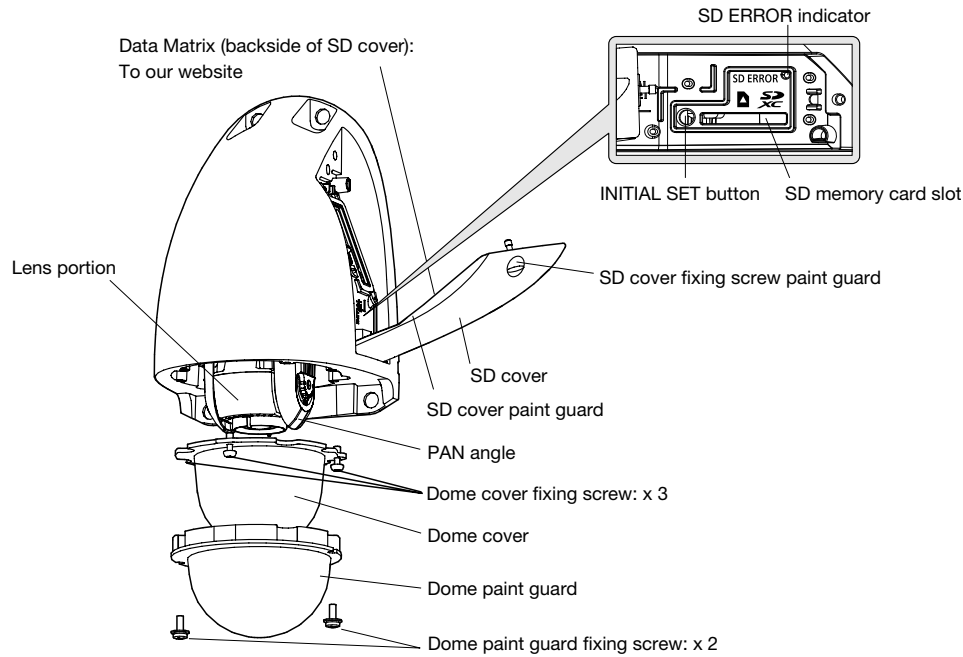
[3] When using IPv6 for communication, use Microsoft® Windows® 10 or Microsoft® Windows® 8.1 or Microsoft® Windows® 8 or Microsoft® Windows® 7.

[4] Transmission for 2 streams can be individually set in the same compression method.

[5] Only when installation work specified in this book is properly performed and appropriate waterproof treatment is performed.
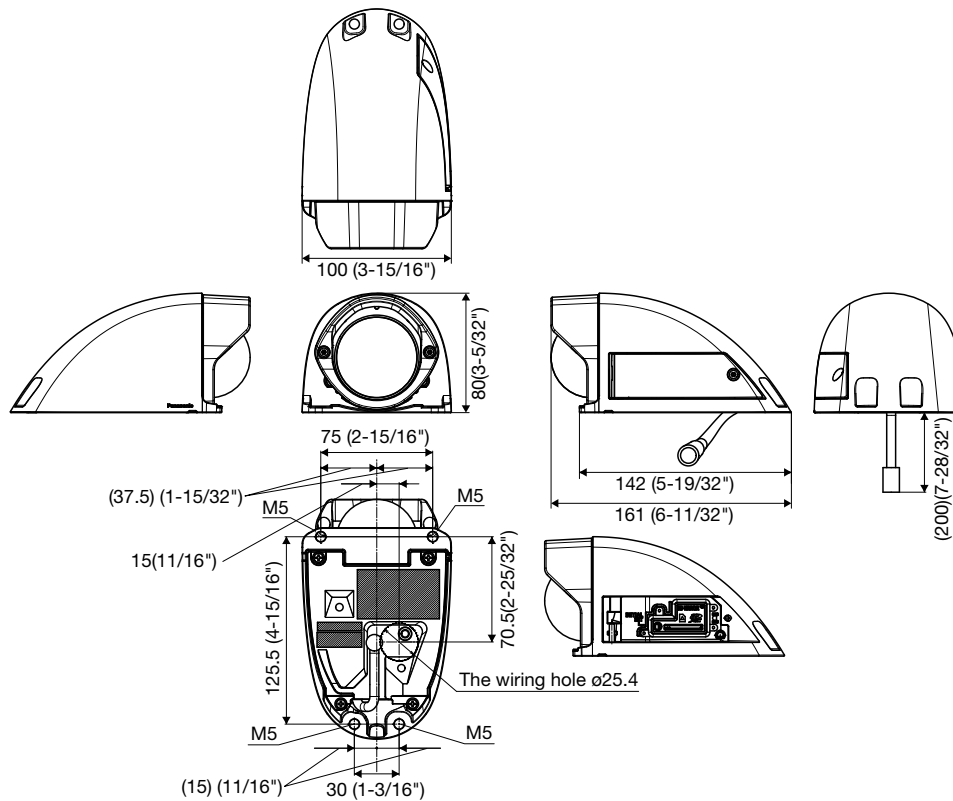
[6] Component that has a structure on which the screws that are accessible after installation cannot be screwed or unscrewed using an ordinary screwdriver

Part Names and Functions

Data Matrix (backside of SD cover):
To our website

SD ERROR indicator

INITIAL SET button   SD memory card slot

Lens portion

SD cover fixing screw paint guard

SD cover

SD cover paint guard

PAN angle

Dome cover fixing screw: x 3

Dome cover

Dome paint guard

Dome paint guard fixing screw: x 2

Appearance

Unit : mm (inches)

100 (3-15/16")

80(3-5/32")

75 (2-15/16")

(37.5) (1-15/32")

M5   M5

15(11/16")

125.5 (4-15/16")

70.5(2-25/32")

142 (5-19/32")

161 (6-11/32")

(200)(7-28/32")

The wiring hole ø25.4

M5   M5

(15) (11/16")   30 (1-3/16")

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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.

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