Panasonic
BUSINESS

Super Dynamic Full HD Vandal Resistant Dome Network Camera
WV-SFV130 / WV-SFV130M
Super Dynamic HD Vandal Resistant Dome Network Camera
WV-SFV110 / WV-SFV110M

i-PRO **SmartHD**

Super Dynamic

ONVIF | **S** **G**

WV-SFV130 / WV-SFV130M

Front View
WV-SFV130 / WV-SFV130M

VIQS | H.264 JPEG | **FULL HD** Full High Definition 1080/30p | **HD** High Definition 720/30p | day/night | **Vandal Resistant** | HLC | **Fog sand** Compensation | **IP66** standard | *i-VMD* (Optional) **Type2**

(WV-SFV130 / WV-SFV130M) | (WV-SFV110 / WV-SFV110M)

*i-VMD Type2 : Intruder Detection / Loitering Detection / Direction Detection / Scene Change Detection / Object Detection / Cross Line Detection

Full HD / 1,920 x 1,080 Compact Dome Network Camera (WV-SFV130 /WV-SFV130M)
HD / 1,280 x 720 Compact Dome Network Camera (WV-SFV110 / WV-SFV110M)

Key Features

- 1080p Full HD images up to 30 fps (WV-SFV130 / WV-SFV130M)
- 720p HD images up to 30 fps (WV-SFV110 / WV-SFV110M)
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording.
- *Super Dynamic* and ABS (Adaptive Black Stretch) technologies deliver 122 dB wider dynamic range compared to conventional cameras.
- *Face Super Dynamic Range* technology ensures clear face image.
- High sensitivity with Day/Night (Electrical) function :
  0.1 lx (Color), 0.08 lx (B/W) at F2.3 (WV-SFV130 / WV-SFV130M)
  0.04 lx (Color), 0.03 lx (B/W) at F2.3 (WV-SFV110 / WV-SFV110M)
- 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.
- 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.
- Progressive scan ensures clear images with less motion blur and no tearing even when the subject is moving.
- 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)
- Face detection function detects the position of human face and the information is sent by XML or video stream. (Optional)
- Can be added new intelligent extension software (Optional) in addition to built-in VMD (Video Motion Detection), alarm function.
- **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)
- ONVIF compliant model
- Low profile design for discrete installation
- Electronics equipment used on rolling stock
  EN50155-T3 (railroad standard) / EN50121, EN45545 compliant
  ECE-R10 (E approval), EN50498 compliant (WV-SFV130M/WV-SFV110M only)
- Wide coverage
  WV-SFV130 / WV-SFV130M [16 : 9 mode] Horizontal : 108 ° Vertical : 60 °
  WV-SFV110 / WV-SFV110M [16 : 9 mode] Horizontal : 100 ° Vertical : 55 °
- The camera conforms to the IP66, Type 4X (UL50) is compliant with NEMA 4X ratings, and provides high dust resistance and waterproof performance.
- Vandal resistant mechanism for high reliability

Optional Accessory

Smoke Dome Cover
WV-CW6SA

Specifications

Camera	Image Sensor		Approx. 1/3 type MOS image sensor
	Scanning Mode		Progressive
	Scanning Area	WV-SFV130	5.28 mm (H) x 2.97 mm (V)
		WV-SFV130M	{7/32 inches (H) x 1/8 inches (V)}
		WV-SFV110	4.86 mm (H) x 3.65 mm (V)
		WV-SFV110M	{3/16 inches (H) x 5/32 inches (V)}
	Minimum Illumination	WV-SFV130 WV-SFV130M	Color: 0.1 lx (F2.3, Maximum shutter : Off (1/30s), AGC : High)
			0.007 lx (F2.3, Maximum shutter : Max. 16/30s, AGC : High) [1]
			BW: 0.08 lx (F2.3, Maximum shutter : Off (1/30s), AGC : High)
			0.005 lx (F2.3, Maximum shutter : Max. 16/30s, AGC : High) [1]
		WV-SFV110 WV-SFV110M	Color: 0.04 lx (F2.3, Maximum shutter : Off (1/30s), AGC : High)
			0.003 lx (F2.3, Maximum shutter : Max. 16/30s, AGC : High) [1]
			BW: 0.03 lx (F2.3, Maximum shutter : Off (1/30s), AGC : High)
			0.002 lx (F2.3, 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
	Super Dynamic		On (High) / On (Normal) / Off
	Dynamic range		122 dB typ. (Super Dynamic : On)
	Face Super Dynamic		On/ Off (only when Super Dynamic : On)
	Adaptive Black Stretch		On / Off (only when Super Dynamic : Off)
	Back light compensation (BLC)		On/ Off (only when Super Dynamic : Off)
	Fog compensation		On / Off (only when Super Dynamic/ Adaptive black stretch: Off)
	High light compensation (HLC)		On / Off (only when Super Dynamic / 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 (up to 8 zones available)
	Camera Title (OSD)		Up to 20 characters (alphanumeric characters, marks), On / Off
Lens	Focal Length		2.8 mm {1/8 inches}
	Digital (electronic) zoom		Choose from 3 levels of x1, x2, x4
	Zoom ratio		x1
			WV-SFV130 / WV-SFV130M :
			3x Extra zoom (2.0 mega pixel [16 : 9] mode)
			WV-SFV110 / WV-SFV110M : 2x Extra zoom
	Angular Field of View	WV-SFV130	[16 : 9 mode] Horizontal : 108 ° Vertical : 60 °
		WV-SFV130M	[4 : 3 mode] Horizontal : 89 ° Vertical : 66 °
		WV-SFV110	[16 : 9 mode] Horizontal : 100 ° Vertical : 55 °
		WV-SFV110M	[4 : 3 mode] Horizontal : 100 ° Vertical : 73 °
	Maximum aperture ratio		1 : 2.3
	Focus Distance		0.5 m - ∞
Adjusting Angle			Installing on a ceiling
			Horizontal : –20 ° to +20 °
			Vertical : –20 ° to 0 ° (right under) to +90 ° (right beside)
			Installing on a wall
			Horizontal : +90° to –90°
			Vertical : –20 ° to 0 ° (right beside) to +90 ° (right under)
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/Off, 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) Safari*, Google Chrome*, Mozilla Firefox* * with limitations in the part of setting screen
Network	Network IF		
		WV-SFV130 / WV-SFV110	10Base-T / 100Base-TX, RJ45 connector (female)
		WV-SFV130M / WV-SFV110M	10Base-T / 100Base-TX, M12 connector (female)
	Image Resolution H.264/JPEG	WV-SFV130 WV-SFV130M	•2 mega pixel [16 : 9] 1,920 x 1,080 / 1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90 * "1,920 x 1,080" mode is only available for H.264(1), H.264(2). •2 mega pixel [4 : 3] 1,600 x 1,200 / 1,280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA / 160 x 120 * "1,600 x 1,200" mode is only available for H.264(1), H.264(2). •3 mega pixel [4 : 3] 2,048 x 1,536 [4] / 1,280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA / 160 x 120 * "2,048 x 1,536" mode is only available for H.264(1), H.264(2).
		WV-SFV110 WV-SFV110M	•1.3 mega pixel [16 : 9] 1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90 •1.3 mega pixel [4 : 3] 1,280 x 960 / 800 x 600 / VGA / 400 x 300 / QVGA / 160 x 120

Network	Image compression method		
	H.264 [5]	Transmission Mode	Constant bit rate / Variable bit rate / Frame rate / Best effort / Advanced VBR
		Frame Rate	1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 fps
		Bit Rate per Client	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 / 4,096 / 6,144 / 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 / 9 Low
		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
	Cropping function [6]		Off / JPEG (1) / JPEG (2) / JPEG (3) / H.264 (1) / H.264 (2) / H.264 (3) / H.264 (4) / H.264 (all) Alarm action On/ Off
	Audio compression method		G.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps, AAC-LC [7] 64 kbps, AAC-LC (HIGH QUALITY)[8] 64 kbps / 96 kbps / 128 kbps
	Bandwidth control		64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps
	Supported Protocol		IPv6 : TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, MLD, ICMP, ARP, DiffServ IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP, DiffServ
	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.)
	Maximum concurrent access number		Up to 14 users (Depends on network conditions)
	SDXC/SDHC/SD Memory Card(Option)		Manufactured by Panasonic (SD speed class 4 or higher) SDXC memory card : 64 GB, 128 GB SDHC memory card : 4 GB, 8 GB, 16 GB, 32 GB SD memory card : 2 GB (except miniSD card and microSD card)
	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, Audio detection 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
	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, Alternative A) 48 V DC : 90 mA / Approx. 4.3 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)
	Built-in microphone		Nondirectional electret condenser microphone
	Shock resistance		Compliant with 50J (IEC 60068-2-75) / IK10 (IEC 62262)
	Waterproof		IP66 (IEC60529), Type 4X (UL50), NEMA 4X compliant [9]
	Other standard support		EN50155-T3 (railroad standard) / EN50121, EN45545 compliant ECE-R10 (E approval), EN50498 compliant (WV-SFV130M/WV-SFV110M only)
	Dimensions		**Installing using the mount bracket :** ø109 mm × 70 mm (H) {ø4-9/32 inches × 2-3/4 inches (H)} Dome radius 54 mm {2-1/8 inches} **Installing on a wall or a ceiling directly :** ø109 mm × 47 mm (H) {ø4-9/32 inches × 1-27/32 inches (H)} Dome radius 54 mm {2-1/8 inches}
	Mass (approx.)		**When using mount bracket :** Approx. 410 g {0.9 lbs} **Installing on a wall or a ceiling directly :** Approx. 350 g {0.77 lbs}
	Finish		**Main body :** Aluminum die cast, Light gray **Dome cover :** Polycarbonate resin, Clear
	Others		Tamper-resistant enclosure [10]

*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 Used by super resolution techniques
*5 Transmission for 4 streams can be individually set.
*6 Cropping setting is not possible for stream set to maximum resolution.
*7 Only use AAC-LC (Advanced Audio Coding - Low Complexity) when recording audio on an SD memory card.
*8 When "AAC-LC (HIGH QUALITY)" is selected, there are limitations about the following function.
· "SD memory card" is not available.
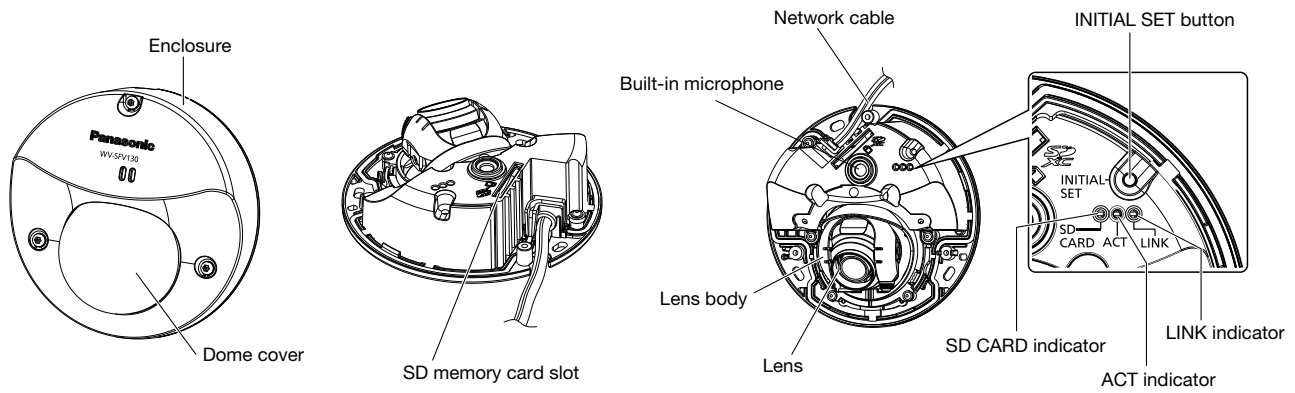· "Audio detection" is not available.
· HTTPS is not available.
· The maximum concurrent access number is limited to 5
*9 Only when installation work is properly performed and appropriate waterproof treatment is performed.
*10 Component that has a structure on which the screws that are accessible after installation cannot be screwed or unscrewed using an ordinary screwdriver
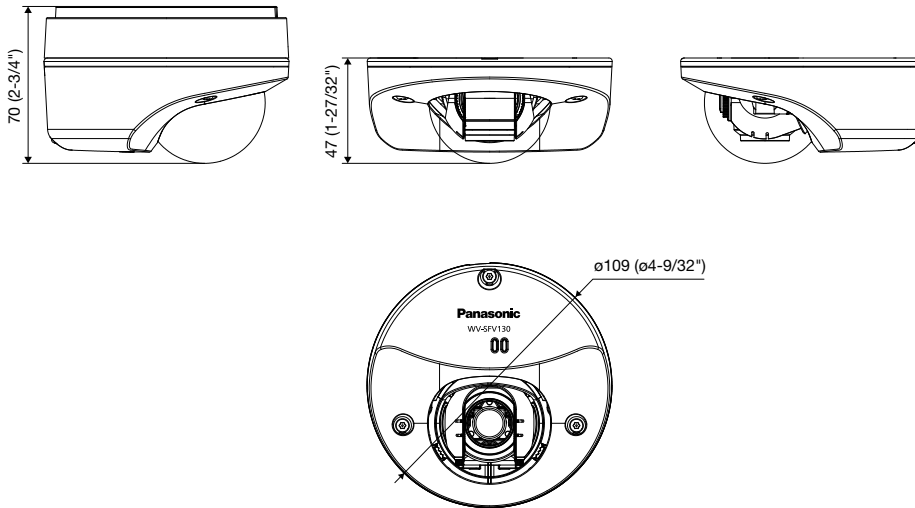
Enclosure

Network cable

INITIAL SET button

Built-in microphone

INITIAL-SET

SD CARD ACT LINK

Dome cover

SD memory card slot

Lens body

Lens

SD CARD indicator

ACT indicator

LINK indicator

* These illustrations are WV-SFV130.

Appearance

Unit : mm (inches)

70 (2-3/4")

47 (1-27/32")

ø109 (ø4-9/32")

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Important
– Safety Precaution: Carefully read the Important Information, Installation Guide and operating instructions before using this product.
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• Masses and dimensions are approximate.
• Specifications are subject to change without notice.

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