Panasonic

Super Dynamic Full HD Dome Network Camera

WV-SFN631L

Super Dynamic HD Dome Network Camera

WV-SFN611L

Preliminary

WV-SFN631L   WV-SFN611L

i-PRO SmartHD **6** Series

Onvif

SD ENHANCED Super Dynamic | VIQS Variable Image Quality on Specified area | H.264 JPEG | FULL HD Full High Definition 1080/60p (WV-SFN631L) | HD High Definition 720/60p (WV-SFN611L) | day/night IR removable | Auto Back Focus

Full HD / 1,920 x 1,080 60 fps H.264 Network Camera featuring *Super Dynamic* (WV-SFN631L)
HD / 1,280 x 960 60 fps H.264 Network Camera featuring *Super Dynamic* (WV-SFN611L)

Key Features

- **1080p** Full HD / **720p** HD images up to **60 fps**
- Approximate 1/3 inches, high sensitivity MOS Sensor
- Super high resolution at Full HD/1,920 x 1,080 created by high sensitivity MOS Sensor. (WV-SFN631L only)
- **Multiple H.264 (High profile) streams (max. 4 streams)** and JPEG streams ensure simultaneous real time monitoring and high resolution recording by new enhanced "UniPhier®", Panasonic's proprietary System LSI platform.
- Maximum Screen Size is 2,048 x 1,536* @30fps, H.264 (WV-SFN631L only) * Used by super resolution techniques
- *Enhanced Super Dynamic* and ABS (Adaptive Black Stretch) technologies deliver 133 dB wider dynamic range compared to conventional cameras.
- **Multi process NR & 3D-DNR** ensures noise reduction in various conditions.
- High sensitivity with Day & Night (IR) function:
  WV-SFN631L: 0.04 lx (Color), 0.003 lx (B/W) at F1.3
  WV-SFN611L: 0.01 lx (Color), 0.0007 lx (B/W) at F1.3
- **IR LED** equipped: The equipped infrared LED makes it possible to take pictures at zero lx.
- **IR LED** is controlled to match the environment, thereby the camera provides clear images of human faces without white blur.
- New camera attachment bracket allows an **easy camera installation** toward all four directions.
- **ABF (Auto Back Focus) and Motorized Zoom** ensures easy installation.
- Newly developed lens with aperture control function realizes the best focus in any environment.
- **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.
- Cropping function enables to provide whole image(1920 x 1080) and the part image (640 x 480) simultaneously.
  Up to 4 image capture areas can be specified, and it is also possible to control the sequence.
- *Face Super Dynamic* Range technology ensures clear face image.
- Compensation for the distorted images can be adjusted 256 steps.
- Electronic sensitivity enhancement: Auto (Up to 16/30s) / 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.
- 3x (WV-SFN631L), 2x (WV-SFN611L) extra optical zoom at 640 x 360 resolution
- 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 3 terminal input, VMD and Panasonic alarm command can trigger actions such as SDXC/SDHC/SD memory recording, FTP image transfer, E-mail notification, Indication on browser, Alarm terminal output, and Panasonic alarm protocol output.
- Full duplex bi-directional audio allows interactive communication between camera site and monitoring site.
- 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.
- **Double SDXC/SDHC/SD Memory card slots** for manual recording (H.264 / JPEG), alarm recording (H.264 / JPEG) and backup upon network failure (H.264 / JPEG). Realize long-term recording and auto backup function.
- Newly developed dome cover enables clearer images with a wide range of tilt angles.
- Can be added new intelligent extension software in addition to built-in VMD (Video Motion Detection), alarm function.
- **Fog compensation function** equipped as standard.
- **Super Chroma Compensation** function realizes a better color reproducibility even in low illumination.
- 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

Standard Accessories

- Installation Guide.................. 1 set
- CD-ROM*1............................. 1 pc.
- Code label*2.................................. 1 pc.

*1 The CD-ROM contains the operating instructions and different kinds of tool software programs.
*2 This label may be required for network management. The network administrator shall retain the code label.

The following parts are used during installation procedures.
- Attachment plate................... 1 pc.
- Template A
  (for the attachment plate)...... 1 sheet.
- Bit... 1 pc.
- MONITOR OUT conversion plug....... 1 pc.
- Cable tie.................... 2 pcs. (incl. 1 spare)
- External I/O terminal plug................. 1 pc.
- Power cord plug.............................. 1 pc.

Optional Accessory

Ceiling Mount Bracket **WV-Q105A**	Ceiling Mount Bracket **WV-Q174B**	Dome Cover **WV-CF5SA**

Specifications

Camera

Camera	Image Sensor	Approx. 1/3 type MOS Sensor
	Effective Pixels	WV-SFN631L : Approx. 2.4 megapixel WV-SFN611L : Approx. 1.4 megapixel
	Scanning Mode	Progressive scan
	Scanning Area	WV-SFN631L : 5.421 mm (H) x 3.405 mm (V) {7/32 inches(H) x 1/8 inches(V) } WV-SFN611L : 4.860 mm (H) x 3.904 mm (V) {3/16 inches(H) x 5/32 inches(V) }

	Minimum Illumination	WV-SFN631L :
		  Color: less than 0.04 lx, BW: 0.003 lx (F1.3, Maximum shutter : Max. 1/30s, Gain : On(High))
		  Color: less than 0.005 lx, BW 0.001 lx (F1.3, Maximum shutter : Max. 16/30s, Gain : On(High)) *1
		WV-SFN611L :
		  Color: less than 0.01 lx, BW: 0.0007 lx (F1.3, Maximum shutter : Max. : Off (1/30s), Gain : On(High))
		  Color: less than 0.0025 lx, BW 0.001lx (F1.3, Maximum shutter : Max. : 16/30s, Gain:On(High)) *1

	IR LED Light	Off/Auto(High/Mid/Low)
	IR LED irradiation distance	Approx. 30 m {98.43 feet}
	White Balance	AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 6,000 K), ATW2 (2,000 ~ 6,000 K)
	Light Control Mode	Outdoor scene/ Indoor scene (50 Hz)/ Indoor scene (60 Hz)/ Fix shutter
	Shutter Speed	[2 mega pixel [16:9](60 fps mode)/ 1.3 mega pixel [16:9](60 fps mode)] OFF(1/60), 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000,1/10000 Other than [2 mega pixel [16:9](60 fps mode)/ 1.3 mega pixel [16:9](60 fps mode)] OFF(1/30), 3/100, 3/120, 2/100, 2/120, 1/100, 1/120, 1/250,1/500, 1/1000, 1/2000, 1/4000, 1/10000
	Super Dynamic	On(High) / On(Normal) / Off
	Face Super Dynamic	ON / OFF (Only at Super Dynamic : ON)
	Adaptive Black Stretch	ON / OFF
	Fog compensation	ON / OFF (only when Super Dynamic / Adaptive black stretch: Off)
	AGC	ON (LOW, MID, HIGH) / OFF
	Electronic Sensitivity UP	OFF / AUTO (Max. 2x (2/30 s), 4x (4/30 s), 6x (6/30 s), 10x (10/30 s), 16x (16/30 s))
	Day & Night (IR)	Mode : AUTO1 / AUTO2 / AUTO3 / ON/OFF, Level : High / Low, with external control
	Dynamic Range	133dB typ. (Super Dynamic: ON, Light Control Mode : indoor)
	Digital Noise Reduction	High / Low
	Video Motion Detection	4 areas, Sensitivity : 15 steps, Detection size : 10 steps
	Privacy Zone	Up to 8 zones
	VIQS	Up to 8 zones
	Camera Title (OSD)	Up to 20 characters (alphanumeric characters, marks)
	Electric Zoom	TELE / WIDE , Auto Coarse adjustment of Focus
	Focus Adjustment	ABF / MANUAL(Html only)
	Lens Distortion Compensation	256 steps

Lens

Lens	Vari Focal Length	2.8 ~ 10mm {1/8 inches – 13/32 inches}

	Angular Field of View	WV-SFN631L
		  [16 : 9 mode] Horizontal : 30.68° (TELE) – 104.12° (WIDE)
		              Vertical : 17.30° (TELE) – 56.77° (WIDE)
		  [4 : 3 mode] Horizontal : 25.60° (TELE) – 85.48° (WIDE)
		              Vertical : 19.23° (TELE) – 63.27° (WIDE)
		WV-SFN611L
		  [16 : 9 mode] Horizontal : 28.27° (TELE) – 95.10° (WIDE)
		              Vertical : 15.97° (TELE) – 52.27° (WIDE)
		  [4 : 3 mode] Horizontal : 28.27° (TELE) – 95.10° (WIDE)
		              Vertical : 21.25° (TELE) – 70.23° (WIDE)

	Maximum Aperture Ratio	1 : 1.3 (WIDE) ~ 1 : 3.0 (TELE)
	Focusing Range	0.3 m ~ ∞

Adjusting Angle

Adjusting Angle	Horizontal: ± 180°, Vertical: 0-87°, Image tilt adjustment range: -45°(Left) to +300°Right}

Browser GUI

Browser GUI	Cropping	H.264(1) / H.264(2) / H.264(3) / H.264(all) / JPEG(1) / JPEG(2) / JPEG(3) Up to 4 image capture areas can be specified
	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.
	Digital Zoom	1x, 2x, 4x controlled by browser GUI
	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 (Line) Input : ON / OFF Volume adjustment : Low / Middle / High, Audio Output : ON / OFF Volume adjustment : Low / Middle / High
	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, Russian, Chinese, 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	Microsoft® Windows® 8, Microsoft® Windows® 7, Microsoft® Windows Vista®
	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)

Network

Network	Network IF	10Base-T / 100Base-TX, RJ-45 connector
	Image Resolution	Image Capture Mode: 2 mega pixel [16:9] (30/60 fps) WV-SFN631L : 1,920 x 1,080 / 1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90
		Image Capture Mode: 2 mega pixel [4:3] (30fps) WV-SFN631L : 1,600 x 1,200 / 1,280 x 960 / 800 x 600 / 640 x 480 / 400 x 300 / 320 x 240 / 160 x 120
		Image Capture Mode: 3 mega pixel [4:3] (30fps) WV-SFN631L : 2,048 x 1,536* / 1,280 x 960 / 800 x 600 / 640 x 480 / 400 x 300 / 320 x 240 / 160 x 120 *Used by super resolution techniques
		Image Capture Mode: 1.3 mega pixel [16:9] (30/60fps) WV-SFN611L : 1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90
		Image Capture Mode: 1.3 mega pixel [4:3] (30fps) WV-SFN611L : 1,280 x 960 / 800 x 600 / 640 x 480 / 400 x 300 / 320 x 240 / 160 x 120
	H.264 *3	Transmission Mode	Constant bitrate / Best effort / Advanced VBR
		Frame Rate	1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 / 60 fps
		Bit Rate/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
		Image Quality	LOW / NORMAL / FINE
		Transmission interval	0.1 fps - 60 fps
		Transmission Type	UNICAST / MULTICAST
	JPEG	Image Quality	10 steps
		Transmission interval	0.1 fps - 60 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264 images.)
		Transmission Type	PULL / PUSH
	Audio Compression	G.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps / AAC-LC* *AAC (Advanced Audio Coding - Low Complexity) is only used when recording audio on an SD memory card. *with iris position control
	Audio Mode	OFF / Mic (Line) 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, RTP, 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

Network (continued) / Alarm / Input/Output / General
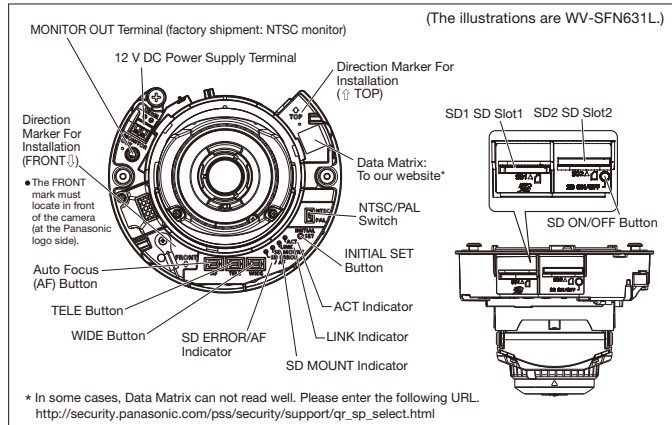
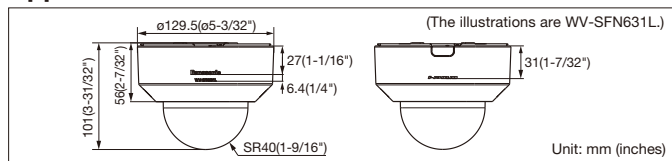|		
Network	FTP Client	Alarm image transmission, FTP periodic transmission (When the FTP transmission is failed, backup on an optional SDXC/SDHC/SD memory card is available.)
	No. of Simultaneous Users	Up to 14 users (Depends on network conditions)
	SDXC/SDHC/SD Memory Card (Option)	H.264 recording : Manual REC / Alarm REC (Pre/Post) / Schedule REC/ Backup upon network failure Compatible JPEG recording : Manual REC / Alarm REC (Pre/Post) / Backup upon network failure Compatible SD (SDHC/SDXC) card: Panasonic 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64GB** model *SDHC card, ** SDXC card (except miniSD card and microSD card)
	Employment of two SD cards	Dual Recording for Redundancy Series Recording for long time
	Cellular Phone Compatibility	JPEG image
	Mobile Terminal Compatibility	iPad, iPhone, iPod touch (iOS 4.2.1 or later), Android™ Terminal
Alarm	Alarm Source	3 terminals input, 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	Alarm / VMD / Access permission / H.264 recording / Scene file
Input/ Output	Monitor Output (for adjustment)	VBS : 1.0 V [p-p]/75 Ω, NTSC / PAL composite, ø3.5mm mini jack
	Microphone/Line Input	MIC IN and Line IN are selectable. ø3.5 mm monaural mini jack (monaural input) (Applicable microphone : Plug-in power type) Supply voltage: 2.5 V ±0.5 V Input impedance: approx. 2 kΩ (unbalanced)
	Audio Output	ø3.5 mm stereo mini jack (monaural output) Output impedance: Approx. 600 Ω (unbalanced)
	External I/O Terminals	ALARM IN 1/DAY/NIGHT IN, ALARM IN 2/ALARM OUT, ALARM IN 3/AUX OUT
General	Safety	UL (UL60950-1), C-UL (CAN/CSA C22.2 No.60950-1), CE, IEC60950-1
	EMS	FCC (Part15 ClassA), ICES003 ClassA, EN55022 ClassB, EN55024
	Power Source and Power Consumption	When IR LED is ON WV-SFN631L DC power supply: 12 V DC/760 mA/Approx. 9.1 W PoE Device: 48 V DC/240 mA/Approx. 11.1 W (Class 0 device) WV-SFN611L DC power supply: 12 V DC/690 mA/Approx. 8.2 W PoE Device: 48 V DC/200 mA/Approx. 9.4 W (Class 0 device) * ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY.
	Ambient Operating Temperature	-10°C ~ +50°C (14 °F ~ 122 °F)
	Ambient Operating Humidity	20 ~ 90 % (no condensation)
	Dimensions	ø129.5 mm x 101 mm (H) {ø5-3/32 inches x 3-31/32 inches (H)} Dome radius 40 mm {1-9/16 inches}
	Mass (approx.)	Approx. 0.5 kg {1.1 lbs}
	Finish	Main body: ABS resin, sail white / Dome section: Clear acrylic resin

*1 Converted value
*2 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®.
*3 Transmission for 4 streams can be individually set.

Part Names and Functions

(The illustrations are WV-SFN631L.)

MONITOR OUT Terminal (factory shipment: NTSC monitor)
12 V DC Power Supply Terminal
Direction Marker For Installation (⇧ TOP)
SD1 SD Slot1   SD2 SD Slot2
Direction Marker For Installation (FRONT⇩)
●The FRONT mark must locate in front of the camera (at the Panasonic logo side).
Data Matrix: To our website*
SD ON/OFF Button
NTSC/PAL Switch
INITIAL SET Button
ACT Indicator
Auto Focus (AF) Button
LINK Indicator
TELE Button
SD MOUNT Indicator
WIDE Button
SD ERROR/AF Indicator

* In some cases, Data Matrix can not read well. Please enter the following URL.
http://security.panasonic.com/pss/security/support/qr_sp_select.html

Appearance

(The illustrations are WV-SFN631L.)

ø129.5(ø5-3/32")
27(1-1/16")
31(1-7/32")
101(3-31/32")
56(2-7/32")
6.4(1/4")
SR40(1-9/16")
Unit: mm (inches)

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http://security.panasonic.com
http://www.facebook.com/PanasonicNetworkCamera

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