Panasonic

Super Dynamic HD Vandal Resistant Dome Network Camera

WV-SFR311 WV-SFR310

Preliminary



HD / 1,280 x 720 60 fps H.264 Vandal Resistant Network Camera featuring *Super Dynamic*

Key Features

- 720p HD images up to 60 fps*1
- Approximate 1/3 inches, high sensitivity MOS Sensor
- Super high resolution at HD/1,280 x 720 created by high sensitivity MOS Sensor.
- 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.
- Enhanced Super Dynamic*¹ 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: WV-SFR311, Electrical: WV-SFR310) function: WV-SFR311: 0.01 lx (Color), 0.003 lx (B/W) at F1.3 WV-SFR310: 0.01 lx (Color), 0.008 lx (B/W) at F1.3
- New camera attachment bracket allows an easy camera installation toward all four directions.
- High Speed ABF (Auto Back Focus) ensures easy installation. (WV-SFR311 only)
- 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 and the part image simultaneously. Up to 4 image capture areas can be specified, and it is also possible to control the sequence.
- Face Super Dynamic technology ensures clear face image.
- Lens distortion compensation for the distorted images can be adjusted 256 steps.
- Electronic sensitivity enhancement: Auto (Up to 16/30s) / OFF
- Selectable light control modes:
- Outdoor scene,Indoor scene (50 Hz) / Indoor scene (60 Hz), Fix shutter Indoor scene (50 Hz/60Hz):
- Flicker caused by fluorescent lightning will be automatically compensated.
- 2x 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.
- Newly developed dome cover provides clearer images above the horizontal. Thereby, it expands the tilting range of the lens.
- 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.
- 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
- Vandal resistant mechanism for high reliability

*1 Super Dynamic function is automatically set off on 60fps mode

Optional Accessories

Ceiling Mount Bracket WV-Q105A



Ceiling Mount Bracket
WV-Q174B



Smoke Dome Cover

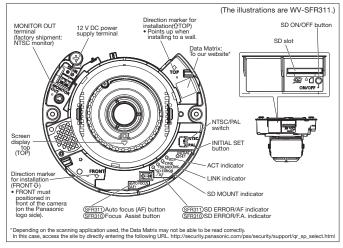


Camera	ifications Image Sensor		Approx. 1/3 type MOS image sensor
ouo.u	Effective		Approx. 1.3 mega pixels
	Scannin		
		<u> </u>	Progressive scan
	Scannin		4.864 mm (H) x 3.891 mm (V) {3/16 inches(H) x 5/32 inches(V)}
	Minimur	n Illumination	WV-SFR311 Color: less than 0.01 lx, BW: 0.003 lx (F1.3, Maximum shutter Max. 1/30s, Gain: On(High)) Color: less than 0.0007 lx, BW: 0.0002 lx (F1.3, Maximum shutter
			Max. 16/30s, Gain : On(High)) WV-SFR310 Color: less than 0.01 lx, BW: 0.008 lx (F1.3, Maximum shutter
			Max. : Off (1/30s), Gain : On(High)) Color: less than 0.0007 lx, BW: 0.0005 lx (F1.3, Maximum shutter
	White B	alance	Max. 16/30s, Gain : On(High)) 1 AWC (2,000 ~ 10,000 K), ATW1 (2,700 ~ 6,000 K), ATW2 (2,000 ~ 6,000 K)
	Light Co	entrol Mode	Outdoor scene: Automatic integration of ALC and ELC Indoor scene [50 Hz]: Automatic integration of ALC and ELC with flickerles Indoor scene [60 Hz]: Automatic integration of ALC and ELC with flickerles
	Shutter	Speed	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 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
		ynamic ^{*2}	1/2000, 1/4000, 1/10000 On(High) / On(Normal) / Off
	Face Su	per Dynamic	ON / OFF (Only at Super Dynamic : ON)
	Adaptiv	Black Stretch	ON / OFF (Only when Super Dynamic OFF)
	-	npensation	ON / OFF (Only when Super Dynamic/ Adaptive black stretch: Off)
		iperisation	
	AGC Electron	ic Sensitivity UP	ON (LOW, MID, HIGH) / OFF max. 1/1000 s, max. 1/500 s, max. 1/250 s, max. 1/100 s, max. 1/60 s, max. 1/30
	Day & N	ight	max. 2/30 s, max. 4/30 s, max. 6/30 s, max. 10/30 s, max. 16/30 s WV-SFR311: IR Mode:Off/ On/ Auto1 (Normal)/ Auto3 (SCC) WV-SFR310: Electrical
	Dynami	Range	WV-5-P-3 ID: Electrical Mode: OFF / AUTO 133 dB typ. (Super Dynamic: ON, Light Control Mode: indoor)
	Dynamic Range Digital Noise Reduction		High/Low
	Video Motion Detection Privacy Zone		4 areas, Sensitivity: 15 steps, Detection size: 10 steps 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
	-	djustment tortion Compensation	WV-SFR311: ABF / MANUAL (Html only) WV-SFR310: Focus Assist 256 steps
Lens	_		
Lens		al Length	2.8 ~ 10mm {1/8 inches–13/32 inches}
	Angular Field of View		[16:9 mode] Horizontal: 27.7°(TELE) – 99.3° (WIDE) Vertical: 15.7° (TELE) – 54.2° (WIDE) [4:3 mode] Horizontal: 27.7°(TELE) – 99.3° (WIDE)
	Maximum Aperture Ratio		Vertical : 20.8°(TELE) – 73.1° (WIDE) 1:1.3 (WIDE) ~ 1:3.1 (TELE)
	Focusing Range		0.3 m ~ ∞
Adjusting	Angle		Horizontal: ±180°, Vertical: ±85°, Image tilt adjustment range: -225° (Left) to +120° (Right
Browser GUI	Cropping		H.264(1)/H.264(2)/H.264(3)/H.264(4)/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 Qua screens or 16 split screen (JPEG only). 20 characters camera title available.
	Digital Zoom		1x, 2x, 4x controlled by browser GUI
	Camera		Up to 20 alphanumeric characters
	Clock D		Time: 12H/24H, Date: 5 formats on the browser, Summer time (Manual)
	Alarm C		Reset
	One Sho	ot 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 (WV-SFR311 only): ON / OFF Volume adjustment: Low / Middle / High,
		nory Data Download	Still or motion Images recorded in the SDXC/SDHC/SD memory card can be downloaded
Network	GUI / Setup Menu Language System Log		English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanes Up to 100 (Internal)
	Supported OS ⁻³		Up to 4,000 (SDXC/SDHC/SD memory when the recording format is set to JPEG.) error log Microsoft [®] Windows [®] 8.1, Microsoft [®] Windows [®] 8, Microsoft [®] Windows [®] 7, Microsoft [®] Windows Vist.
	Supported Browser		Windows® Internet Explorer® 11.0 (32 bit), Windows® Internet Explorer® 10.0 (32 bit), Windows® Internet Explorer® 8.0 (32 bit), Windows® Internet Explorer® 8.0 (32 bit),
	Network IF		Windows®Internet Explorer® 7.0 (32 bit) 10Base-T / 100Base-TX, RJ-45 connector
	Image Resolution		Image Capture Mode: 1.3 mega pixel [16:9] (30/60fps) 1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90 Image Capture Mode: 1.3 mega pixel [4:3] (30fps)
	H.264 ^{*4}	Transmission Mode	1,280 x 960 / 800 x 600 / 640 x 480 / 400 x 300 / 320 x 240 / 160 x 120 Constant bitrate / Framerate priority / Best effort / Advanced VBR
		Frame Rate Bit Rate/Client	1/3/5/7.5/10/12/15/20/30/60 fps 64/128/256/384/512/768/1,024/1,536/2,048/3,072/4,096/6,144/8,19
		Image Quality Refresh interval	/ 10,240 / 12,288 / 14,336 / 16,384 / 20,480 / 24,576 kbps LOW/NORMAL/FINE
		Detrestricterval	0.2/0.25/0.33/0.5/1/2/3/4/5s
	IDEC	Transmission Type	UNICAST/MULTICAST
	JPEG	Transmission Type Image Quality Refresh interval	10 steps 0.1 fps - 30 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264 image
		Transmission Type Image Quality Refresh interval Transmission Type	10 steps 0.1 fps - 30 fps UPEG frame rate will be restricted when displaying both JPEG and H.264 image PULL / PUSH
	Audio C	Transmission Type Image Quality Refresh interval Transmission Type ompression	10 steps 0.1 fps - 30 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264 image PULL / PUSH G.726 (APDCM) 32 kbps / 16 kbps, G.711 64 kbps / AAC-LC
	Audio C Audio N	Transmission Type Image Quality Refresh interval Transmission Type ompression	10 steps 0.1 fps - 30 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264 image PULL / PUSH G.726 (APDCM) 32 kbps / 16 kbps, G.711 64 kbps / AAC-LC
	Audio C Audio M Authent Total Bit	Transmission Type Image Quality Refresh interval Transmission Type ompression lode location for Audio Rate	10 steps 0.1 fps-30 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264 image PULL / PUSH G.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps / AAC-LC OFF / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duple Level 1 only / Level 2 higher / All users 64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimited
	Audio C Audio M Authent Total Bit	Transmission Type Image Quality Refresh interval Transmission Type ompression lode cation for Audio	10 steps 0.1 fps-30 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264 image PULLL / PUSH G.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps / AAC-LC OFF / Mirc (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duple Level 1 only / Level 2 higher / All users 64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimited IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, FTP, SMTP, DNS, NTP, SNMI DHCPv6, RTP, MLD, ICMP, ARP IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMT
	Audio C Audio M Authent Total Bit	Transmission Type Image Quality Refresh interval Transmission Type ompression ode cation for Audio Rate ed Protocol	10 steps 0.1 fps: 30 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264 image PULL / PUSH 6.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps / AAC-LC 0FF / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duplex) et al. (Full duplex) / Interactive (Half dupl

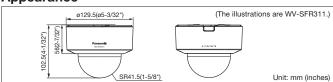
Network	SDXC/SDHC/SD	H.264 recording: Manual REC / Alarm REC (Pre/Post) / Schedule REC/
	Memory Card (Option)	Backup upon network failure Compatible (JPEG only)
	* Manufactured by Panasonic	JPEG recording: Manual REC / Alarm REC (Pre/Post) / Backup upon network
	(SD speed class 4 or higher)	failure Compatible SD (SDHC/SDXC) card: Panasonic
	* Use the SD memory card that	2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64GB** model
	complies with UHS-1 (Ultra High Speed-1) in the case of	*SDHC card, ** SDXC card (except miniSD card and microSD card)
	SD Speed Class 10.	
	Cellular Phone Compatibility	JPEG image, AUX control (by access level)
	Mobile Terminal Compatibility	iPad, iPhone, iPod touch (iOS 4.2.1 or later), Android™ Terminal
Alarm	Alarm Source	3 terminals input, VMD, Command alarm, Audio detection alarm
	Alarm Actions	SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notification
		Indication on browser, FTP image transfer, Panasonic protocol output
	Alarm Log	With SDXC/SDHC/SD memory card: Up to 50,000 logs for each SD memory card
	Schedule	Alarm / VMD / Access permission / H.264 recording / Scene file
Input/	Monitor Output	VBS: 1.0 V [p-p]/75Ω, NTSC / PAL composite,
Output	(for adjustment)	ø3.5mm mini jack MONITOR OUT conversion plug included
	Microphone/Line Input	MIC IN and Line IN are selectable. ø3.5 mm monaural mini jack (monaural input)
	(WV-SFR311 only)	(Applicable microphone: Plug-in power type)
		Supply voltage: 2.5 V ±0.5 V Input impedance: Approx. 2 kΩ (unbalanced)
	Audio Output (WV-SFR311 only)	ø3.5 mm stereo mini jack (monaural output) Output impedance: Approx. 600 Ω (unbalanced)
	External I/O Terminals	WV-SFR311 ALARM IN 1/DAY/NIGHT IN, ALARM IN 2/ALARM OUT,
		ALARM IN 3/AUX OUT
		WV-SFR310 ALARM IN 1, 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	WV-SFR311 DC power supply: 12 V DC/340 mA/Approx. 4.1 W
	Power Consumption	PoE Device: 48 V DC/130 mA/Approx. 6.2 W* (Class 2 device)
		WV-SFR310 DC power supply: 12 V DC/310 mA/Approx. 3.7 W
		PoE Device: 48 V DC/120 mA/Approx. 5.8 W* (Class 2 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)
	Shock Resistance	Compliant with 20J IEC60068-2-75/ IEC 62262 IK10
	Dimensions	ø129.5 mm x 102.5 mm (H) {ø5-3/32 inches x 4-1/32 inches (H)}
		Dome radius 41.5 mm (1-5/8 inches)
	Mass (approx.)	0.66kg {1.45 lbs}
	Finish	Main body: Aluminum die cast, sail white / Dome section: Clear polycarbonate resin

- 1 Converted value
 2 Super Dynamic function is automatically set off on 60fps mode.
 3 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 Microsoft® Windows® 7 or Microsoft® Windows Vista®.
 4 Transmission for 4 streams can be individually set.

Part Names and Functions



Appearance



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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'
- Masses and dimensions are approximate. Specifications are subject to change without notice.

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