Panasonic BUSINESS

Super Dynamic HD Weatherproof Network Camera WV-SPW311AL



WMD Type? Lists year Detection / Leitering Detection / Direction Detection / Copps Change Detection / Object Detection / Copps Line Detec

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

Key Features

- 720p HD images up to 60 fps*1
- Approximate 1/3 inches, high sensitivity MOS image sensor
- Multiple H.264 (High profile) streams (max. 4 streams) and JPEG streams ensure simultaneous real time monitoring and high resolution recording.
- Maximum Screen Size is 1,920 x 1,080* @30 fps, H.264
 Used by super resolution technology
- Enhanced Super Dynamic^{*1} and ABS (Adaptive Black Stretch) technologies deliver 133 dB wider dynamic range compared to 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, 2D MAND (Multi-process Noise Reduction) and

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 (ICR*) function:
 0.02 lx (Color), 0.006 lx (B/W) at F1.6
 *ICR: IR Cut filter Removal
- 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.
- ABF (Auto Back Focus) 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 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/60 Hz): 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.
- 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 (H.264 / JPEG). Realize long-term recording and auto backup function.
- Can be added new intelligent extension software 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.
- SCC (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.
- IPv4/IPv6 protocol supported
- Supports SSL, DDNS (viewnetcam, RFC2136)
- Still images (JPEG) can be viewed on mobile phones via Internet.
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard, Type 4X(UL50), NEMA 4X compliant.
- Dehumidification device for use with various weather conditions
- *1 Super Dynamic function is automatically set off on 60 fps mode.

Optional Accessory

Adaptor Box WV-Q120A



Camera	Image \$	Sensor	Approx. 1/3 type MOS image sensor
Gumora		ng Mode	Progressive scan
	Scanning Area		4.86 mm (H) x 3.89 mm (V) {3/16 inches (H) x 5/32 inches (V)}
	Minimum Illumination IR LED Light		Color: 0.02 Ix, BW: 0.006 lx (F1.6, Maximum shutter: Max. 1/30s, Gain: On(High BW: 0 Ix (F1.6, Maximum shutter: Off(1/30s), Gain: High, when the IR LED is lit) Color: 0.0013 lx, BW: 0.0004 lx (F1.6, Maximum shutter: Max. 16/30s, Gain: On(High))
			Off / Auto(High / Mid / Low)
	IR LED irradiation distance		Approx. 30 m {98.43 feet}
	White Balance Light Control Mode		AWC (2,000 - 10,000 K), ATW1 (2,700 - 6,000 K), ATW2 (2,000 - 6,000 K) Outdoor scene / Indoor scene (50 Hz) / Indoor scene (60 Hz) / Fix shutter
	Super Dynamic *2 Face Super Dynamic Adaptive Black Stretch Fog compensation High light compensation(HLC) AGC Maximum shutter Day/Night (ICR) Dynamic Range		[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, 1/1000) 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, 1/2000, 1/4000, 1/10000 On(High) / On(Normal) / Off
			On / Off (only when Super Dynamic : On) On / Off (only when Super Dynamic : Off)
			On / Off (only when Super Dynamic / Adaptive black stretch : Off) On / Off (only when Super Dynamic / Adaptive black stretch : Off)
			On (Low) / On(Mid), On(High) / Off max. 1/1000 s, max. 1/500 s, max. 1/250 s, max. 1/100 s, max. 1/60 s, max. 2/100 s, max. 1/100 max. 2/120s, max. 1/30 s, max. 2/30 s, max. 4/30 s, max. 6/30 s, max. 10/30 s, max. 16/30
			Off / On / Auto1 (Normal) / Auto2 (IR Light) / Auto3 (SCC)
	Digital Noise Reduction		133 dB typ. (Super Dynamic : On) 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) Focus Adjustment		Up to 20 characters (alphanumeric characters, marks) ABF / MANUAL (Html only)
	Focus Adjustment Lens Distortion Compensation		256 steps
Lens	Vari Focal Length Angular Field of View		2.8 mm – 10 mm {1/8 inches – 13/32 inches} [16 : 9 mode] Horizontal : 28 ° (TELE) - 102 ° (WIDE)
			Vertical : 16 ° (TELE) - 55 ° (WIDE) [4 : 3 mode] Horizontal : 28 ° (TELE) - 102 ° (WIDE) Vertical : 21 ° (TELE) - 74 ° (WIDE)
	Maximum Aperture Ratio Focusing Range		1 : 1.6 (WIDE) - 1 : 3.4 (TELE) 0.3 m - ∞
Adjusting (Camera mou	g Angle	Ceiling mounting	Horizontal : ±180° (PAN rotation part) Vertical : 0° to 90° (TILT rotation part)
		Wall mounting	Yaw : -190° to +100° (YAW rotation part) Horizontal : ±90° (TILT rotation part)*
D	0		Vertical : ±90° (TILT rotation part)* Yaw :-190° to +100° (YAW rotation part) ### UPC (W. UP
Browser GUI	Cropping Camera Control		Off / JPEG(1) / JPEG(2) / JPEG(3) / H.264(1) / H.264(2) / H.264(3) / H.264(4) / H.264(a Alarm action On / Off
	Display		Brightness, AUX On/Off Spot, Quad : Image from 16 cameras can be displayed in 4 different Quantum Control of the Control of th
	Digital Zoom		screens or 16 split screen (JPEG only). 20 characters camera title available 1x, 2x, 4x controlled by browser GUI
	Clock Display		Up to 20 alphanumeric characters Time: 12H/24H, Date: 5 formats on the browser, Summer time (Manual)
	Clock Display 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 Volume adjustment: Low / Middle / High Volume adjustment: Low / Middle / High Volume adjustment in Low / Hig
	SD Memory Data Download GUI / Setup Menu Language		Still or motion Images recorded in the SDXC/SDHC/SD memory card can be downloaded English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanes
	System Log Supported OS *3		Up to 100 (Internal) Up to 4,000 (SDXC/SDHC/SD memory when the recording format is set to JPEG.) error lo Microsoft® Windows® 8.1, Microsoft® Windows® 8,
	Supported Browser		Microsoft® Windows® 7, Microsoft® Windows Vista® Windows® Internet Explorer® 11 (32 bit), Windows® Internet Explorer® 10 (32 bit),
Maderia	Natwork IE		Windows® Internet Explorer® 9 (32 bit), Windows® Internet Explorer® 8 (32 bit), Windows® Internet Explorer® 7 (32 bit), Safari, Google Chrome, Mozilla Firefox 10Base-T / 100Base-TX, RJ45 connector
Network	Network IF Image Resolution		•1.3 mega pixel [16:9] (30/60 fps) 1,280 x 720 / 640 x 360 / 320 x 180 / 160 x 90
			■1.3 mega pixel [4 : 3] (30 fps) 1,280 x 960 / 800 x 600 / 640 x 480 / 400 x 300 / 320 x 240 / 160 x 12(22 mega pixel [16 : 9](30 fps mode) * Used by super resolution technology H.264(1), H.264(2) : 1,920 x 1,080 / 640 x 360 / 320 x 180 / 160 x 90
		Day	H.264(3), H.264(4): 640 x 360 / 320 x 180 / 160 x 90
		Frame Rate	Constant bitrate / Variaable bit rate / Framerate priority / Best effort / Advanced VB 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° kbp
	H.264	Image Quality	Image quality (Constant bit rate / Best effort) :
	*4	(Constant bit rate/Best effort) Smart Coding mode	Low(Motion priority) / Normal/ Fine (Image quality priority) On (Low / Mid / High) / Off (Only when "Variable bit rate" is selected)
		Refresh interval Transmission Type	0.2 / 0.25 / 0.33 / 0.5 / 1 / 2 / 3 / 4 / 5s Unicast / Multicast
		Image Quality	10 steps
	JPEG	Refresh interval	0.1 fps - 30 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
	Audio Mode		Off / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duple
	Authentication for Audio		Level 1 only / Level 2 higher / All users
	Total Bit Rate Supported Protocol		64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimite IPv6 : TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, MLD, ICMP, ARP
	FTP Client		IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP,FTP, SMTP DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP Alarm image transmission, FTP periodic transmission (When the FTP transmissionis failed
	No. 11	Simultor ! !	backup on an optional SDXC/SDHC/SD memory card is available.)
	No. of Simultaneous Users		Up to 14 users (Depends on network conditions)

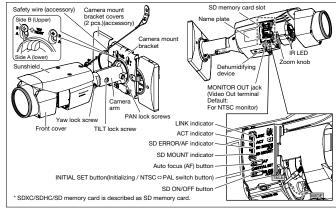
No. of Simultaneous Users Up to 14 users (Depends on network conditions) Masses and dimensions are approximate. • Specifications are subject to change without notice.

Network	SDXC/SDHC/SD	H.264 recording:
	Memory Card (Option)	Manual REC / Alarm REC (Pre/Post) / Schedule REC/ Backup upon network failure Compatible
	* Manufactured by Panasonic	JPEG recording :
	(SD speed class 4 or higher)	Manual REC / Alarm REC (Pre/Post) / Backup upon network failure
	* Use the SD memory card that complies with UHS-1	Compatible SD (SDHC/SDXC) card:
	(Ultra High Speed-1) in the case of	Panasonic 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB*, 64 GB**, 128 GB** mode *SDHC card, ** SDXC card (except miniSD card and microSD card) JPEG image, AUX control (by access level) iPad, iPhone, iPod touch (iOS 4.2.1 or later). Android™ mobile termina
	SD Speed Class 10.	
	Cellular Phone Compatibility	
	Mobile Terminal Compatibility	
Alarm	Alarm Source	3 terminals input, VMD, Command alarm, Audio detection alarm
	Alarm Actions	SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notificatio
		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] / 75 Ω, composite, RCA jack
Output	(for adjustment)	An NTSC or PAL signal can be outputted from camera
Gutput	(ioi dajaotinont)	(either press the INITIAL SET switch quickly (within 1 second) or
		use software to select either NTSC or PAL signal).
	Microphone/Line Input	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-
	FMS	FCC (Part15 ClassA), ICES003 ClassA, EN55022 ClassB, EN55024
	Power Source and	When IR LED is On
	Power Consumption	DC power supply: DC 12 V / 770 mA / Approx. 9.24 W
		PoE (IEEE802.3af compliant): DC 48 V / 200 mA / Approx. 9.6 W* (Class 0 device
		* Maximum power consumption on the camera power input side.
		** ONLY CONNECT DC 12 V CLASS 2 POWER SUPPLY.
	Ambient Operating Temperature	-40 °C to +50 °C (-40 °F to 122 °F)
	Ambient Operating Humidity	10 to 90 % (no condensation)
	Water and Dust Resistance	IP66, IEC60529 measuring standard compatible, Type 4X(UL50), NEMA 4X complian
	Dimensions	95 mm (W) x 99 mm (H) x 334.5 mm (L)
	* Installing using the base bracket	{3-3/4 inches (W) x 3-57/64 inches (H) x 1ft 1-11/64 inches (L)}
	Mass (approx.)	Approx. 1.6 kg {3.5 lbs}
	Finish	Main body : Aluminum die cast, light gray
	1	Front cover section clear part : Clear polycarbonate resin

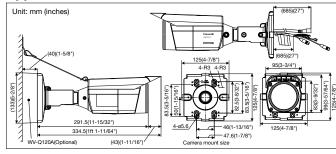
^{*1} Converted value

- 2 Super Dynamic function is automatically set off on 60 fps mode.
 3 Refer to *Notes on Windows Vista* / Windows* 7 / Windows* 8 / Windows* 8.1* on the provided CD-ROM for further information about system requirements for a PC and precautions when using Microsoff* Windows* 8.1. or Microsoft® Windows® 8 or 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' products used on the network.

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