



### HD/1,280 x 960 H.264 Dome Network Camera with 2x Extra Zoom (WV-SF135) VGA/640 x 480 H.264 Dome Network Camera (WV-SF132)

#### Key Features

- 720p HD images up to 30 fps (WV-SF135)
- 1.3 Megapixel high sensitivity MOS Sensor (WV-SF135)
- 0.32 Megapixel high sensitivity MOS Sensor (WV-SF132)
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by "UniPhier®", Panasonic's proprietary System LSI platform.
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size (WV-SF135)
- Full frame (Up to 30 fps) transmission at VGA (640 x 480) image size (WV-SF132)
- ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- High sensitivity with Day & Night (Electrical) function:
  - 0.8 lx (Color), 0.6 lx (B/W) at F2.2 (WV-SF135)
  - 2.0 lx (Color), 1.3 lx (B/W) at F2.9 (WV-SF132)
- VIQS (Variable Image Quality on Specified area) technology allows the designated area 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-DNR ensures noise reduction in various conditions.
- Progressive scan ensures clear images with less motion blur and no tearing even when the subject is moving.
- Superior color reproduction by primary (RGB) color filter
- Electronic sensitivity enhancement:
  - Auto (Up to 16x) / OFF (WV-SF135)
  - Auto (Up to 8x) / OFF (WV-SF132)
- 2x extra zoom under VGA resolution (WV-SF135)
- 2x, 4x digital zoom controlled by browser
- 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.
- VMD (Video Motion Detection) with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size
- Face detection function detects the position of human face and the information is sent by XML or video stream.
- Meta data for VMD works with the WJ-ND400 playback VMD function.
- Privacy Zone can mask up to 2 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.
- 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 / 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
- Wide coverage
  - WV-SF135 Horizontal: 104°, Vertical: 85°
  - WV-SF132 Horizontal: 68°, Vertical: 53°

#### Standard Accessories

- Installation Guide .....1 pc.
- Important Safety Instructions.....1 pc.
- CD-ROM\*1 .....1 pc.
- Code Label\*2 .....1 pc.
- Lens adjuster.....1 pc.

- The followings are for installation.
- Installation Template Label .....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.

## Specifications

TV System		NTSC	PAL	
<b>Camera</b>	Image Sensor	WV-SF135: 1/3 type MOS image Sensor WV-SF132: 1/5 type MOS image Sensor		
	Effective Pixels	WV-SF135: Approx. 1.3 megapixels WV-SF132: Approx. 0.32 megapixels		
	Scanning Mode	Progressive scan		
	Scanning Area	WV-SF135: 4.8 mm (H) x 3.6 mm (V) (3/16" (H) x 5/32" (V)) WV-SF132: 2.69 mm (H) x 2.01 mm (V) (1/8" (H) x 1/16" (V))		
	Minimum Illumination	WV-SF135: Color: 0.8 lx (F2.2, Auto slow shutter: Off (1/30 s), Gain: On (High)) 0.05 lx (F2.2, Auto slow shutter: Max. 16/30 s, Gain: On (High)) BW: 0.6 lx (F2.2, Auto slow shutter: Off (1/30 s), Gain: On (High)) 0.04 lx (F2.2, Auto slow shutter: Max. 16/30 s, Gain: On (High)) WV-SF132: Color: 2.0 lx (F2.9, Auto slow shutter: Max. 8/30 s, AGC: High) 0.3 lx (F2.9, Auto slow shutter: Max. 8/30 s, AGC: High) BW: 1.3 lx (F2.9, Auto slow shutter: Max. 8/30 s, AGC: High) 0.16 lx (F2.9, Auto slow shutter: Max. 8/30 s, AGC: High)		
	White Balance	AWC (2,000 - 10,000 K), ATW1 (2,700 - 6,000 K), ATW2 (2,000 - 6,000 K)		
	Light Control Mode	Indoor scene (50 Hz / 60 Hz) / ELC		
	Shutter Speed	1/30, 3/100, 3/120, 2/100, 2/120, 1/100, 1/120, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/8,000 (WV-SF132), 1/10,000 (WV-SF135)		
	Adaptive Black Stretch	ON / OFF		
	AGC	ON (LOW, MID, HIGH) / OFF		
	Electronic Sensitivity UP	WV-SF135 : OFF (1/30) / AUTO (Max. 2x (2/30 s), 4x (4/30 s), 6x (6/30 s), 10x (10/30 s), 16x (16/30 s)) WV-SF132 : OFF (1/30) / AUTO (Max. 2x (2/30 s), 3x (3/30 s), 4x (4/30 s), 8x (8/30 s))		
	Day & Night (electrical)	Auto / OFF		
	Digital Noise Reduction	High / Low		
	Video Motion Detection	ON / OFF, 4 areas available		
	Privacy Zone	ON / OFF (up to 2 zones available)		
	VIQS	ON / OFF		
	Camera Title (OSD)	Up to 20 characters (alphanumeric characters, marks), ON / OFF		
	Vari Focal Length	1.95 mm		
	Zoom Ratio	WV-SF135: 1x Extra Zoom: 2x (under VGA resolution) WV-SF132: 1x		
	Angular Field of View	WV-SF135: Horizontal: 104 °, Vertical: 85 ° WV-SF132: Horizontal: 68 °, Vertical: 53 °		
Maximum Aperture Ratio	1 : 2.2 (WV-SF135) 1:2.9 (WV-SF132)			
Focusing Range	0.5 m ~ ∞			
<b>Adjusting Angle</b>	Ceiling Installation Horizontal: -20 ° to +20 ° Vertical: -20 ° to +90 ° Wall Installation Horizontal: -80 ° to +80 ° Vertical: -90 ° to +20 °			
<b>Browser GUI</b>	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.		
	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)		
	One Shot Capture	A still picture will be displayed on a newly opened window.		
	GUI/Setup Menu Language	English, Italian, French, German, Spanish, Chinese, Russian, Japanese		
	System Log	Up to 100		
	Supported OS *2 *3	Microsoft® Windows® 7, Microsoft® Windows Vista® Microsoft® Windows® XP SP3		
	Supported Browser	Windows® Internet Explorer® 9.0 (32 bit), Windows® Internet Explorer® 8.0 (32 bit), Windows® Internet Explorer® 7.0 (32 bit), Microsoft® Internet Explorer® 6.0 SP3		
<b>Network</b>	Network IF	10Base-T / 100Base-TX, RJ-45 connector		
	Image Resolution	Aspect ratio: [4 : 3]	WV-SF135: H.264: 1,280 x 960 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG: 1,280 x 960 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps WV-SF132: H.264: VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG: VGA (640 x 480) / QVGA (320 x 240), up to 30 fps	
		Aspect ratio: [16 : 9]	WV-SF135: H.264: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps JPEG: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps WV-SF132: H.264: 640 x 360 / 320 x 180, up to 30 fps JPEG: 640 x 360 / 320 x 180, up to 30 fps	
	H.264 *1	Transmission Mode	Constant bitrate / Framerate priority / Best effort	
		Frame Rate	1 / 3 / 5 / 7.5 / 10 / 15 / 20 / 30 fps   1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 fps	
		Bit Rate/Client	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 1,536 / 2,048 / 3,072 / 4,096 / 8,192* kbps *H.264 mode only (WV-SF135)	
		Image Quality	LOW / NORMAL / FINE	
		Transmission Type	UNICAST / MULTICAST	
	JPEG *1	Image Quality	0 SUPER FINE / 1 FINE / 2 / 3 / 4 / 5 NORMAL / 6 / 7 / 8 / 9	
		Refresh Interval	LOW (10 steps: 0-9)	
Transmission Type		PULL / PUSH		

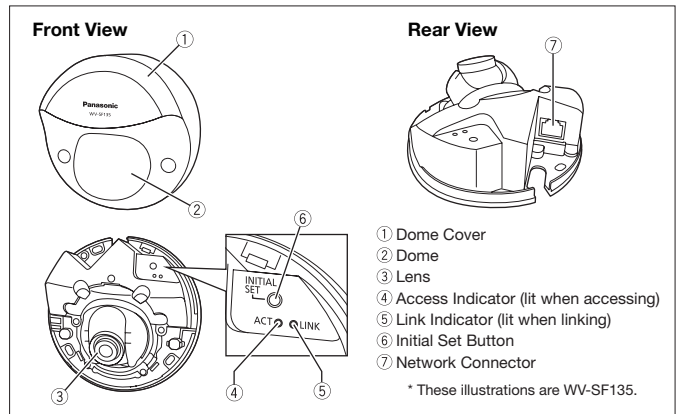
TV System		NTSC	PAL
<b>Network</b>	Total Bit Rate	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimited	
	Supported Protocol	IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6 IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP	
	FTP Client	Alarm image transmission, FTP periodic transmission	
	No. of Simultaneous Users	Up to 14 users (Depends on network conditions)	
	Face Detection	ON / OFF (with XML notification)	
	Cellular Phone Compatibility	JPEG image, AUX control (by access level)	
	Mobile Terminal Compatibility	iPad, iPhone, iPod touch	
<b>Alarm</b>	Alarm Source	VMD, Command alarm	
	Alarm Actions	E-mail notification, Indication on browser, FTP image transfer, Panasonic protocol output	
	Alarm Log	1,000 logs	
	Schedule	VMD	
<b>General</b>	Safety/EMC Standard	UL (UL60950-1), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60950-1), DOC (ICES003 ClassA)	CE, IEC60950-1 (EN55022 ClassB, EN55024)
	Power Source and Power Consumption	PoE (IEEE802.3af compliant) WV-SF135: PoE 48 V: 54 mA (Class1 device) WV-SF132: PoE 48 V: 46 mA (Class1 device)	
	Ambient Operating Temperature	0 °C ~ +40 °C (32 °F ~ 104 °F)	
	Ambient Operating Humidity	Less than 90 % (no condensation)	
	Dimensions	ø100 mm x 47 mm (H) (ø3-15/16" x 5-3/4" (H))	
	Mass (approx.)	200 g (0.44 lbs.)	
	Finish	Main Body: ABS resin, Sail White Dome Section: Clear Polycarbonate Resin	

\*1 Transmission for 2 streams can be individually set in the same compression method.

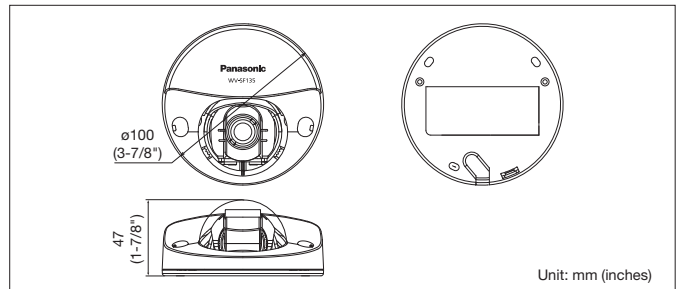
\*2 Refer to "Notes on Windows Vista® / Windows® 7" on the provided CD-ROM for further information about system requirements for a PC and precautions when using Microsoft® Windows® 7 or Microsoft® Windows Vista®.

\*3 When using IPv6 for communication, use Microsoft Windows 7 or Microsoft Windows Vista.

## Part Names and Functions



## Appearance



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### Important

- Safety Precaution: carefully read the operating instructions and installation manual before using this product.
- Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.

- All TV pictures are simulated.
- Masses and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
- All product pictures are NTSC models.

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