

## Super Dynamic HD Vandal Resistant Dome Network Camera WV-SW155 / WV-SW155M

## Super Dynamic Vandal Resistant Dome Network Camera WV-SW152 / WV-SW152M

**Preliminary**



**HD / 1,280 x 960 H.264 Vandal Resistant Network Camera featuring Super Dynamic (WV-SW155)**  
**SVGA / 800 x 600 H.264 Vandal Resistant Network Camera featuring Super Dynamic (WV-SW152)**

### Key Features

- 720p HD images up to 30 fps (WV-SW155)
- 1.3 Megapixel high sensitivity MOS Sensor
- Super high resolution at SVGA/800 x 600 created by 1.3 Megapixel high sensitivity MOS Sensor (WV-SW152)
- Multiple H.264 (High profile) streams and JPEG streams ensure simultaneous real time monitoring and high resolution recording by "UniPhier<sup>®</sup>", Panasonic's proprietary System LSI platform.
- Full frame (Up to 30 fps) transmission at 1,280 x 960 image size (WV-SW155)
- Full frame (Up to 30 fps) transmission at SVGA (800 x 600) image size (WV-SW152)
- **Super Dynamic** and ABS (Adaptive Black Stretch) technologies deliver 128x wider dynamic range compared to conventional cameras.
- **Face Super Dynamic** Range technology ensures clear face image.
- High sensitivity with Day & Night (Electrical) function:
  - 0.8 lx (Color), 0.6 lx (B/W) at F2.2 (WV-SW155)
  - 0.6 lx (Color), 0.4 lx (B/W) at F2.2 (WV-SW152)
- 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.
- Electronic sensitivity enhancement: Auto (Up to 16x) / 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.
- 2x extra zoom under VGA 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
- 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.
- SDHC/SD Memory card slot for manual recording (H.264 / JPEG), alarm recording (H.264 / JPEG) and backup upon network failure (JPEG)
- 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
- "Railway applications – Electronics equipment used on rolling stock" compatible with EN50155
- Wide coverage (Horizontal: 104 °, Vertical: 85 °)
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard.
- Vandal resistant mechanism for high reliability

### Standard Accessories

- |   |                                    |
|---|------------------------------------|
| • Installation Guide .....1 pc.           | • Mount Bracket.....1 pc.          |
| • Important Safety Instructions.....1 pc. | • Tamperproof Screw Bit .....1 pc. |
| • CD-ROM*1 .....1 pc.                     | • Waterproof Tape .....1 pc.       |
| • Code Label*2 .....1 pc.                 |                                    |
| • Lens adjuster.....1 pc.                 |                                    |

The followings are for installation.  
 • Fixing Screws (M4 x 8 mm) .....3 pcs.  
 • 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.

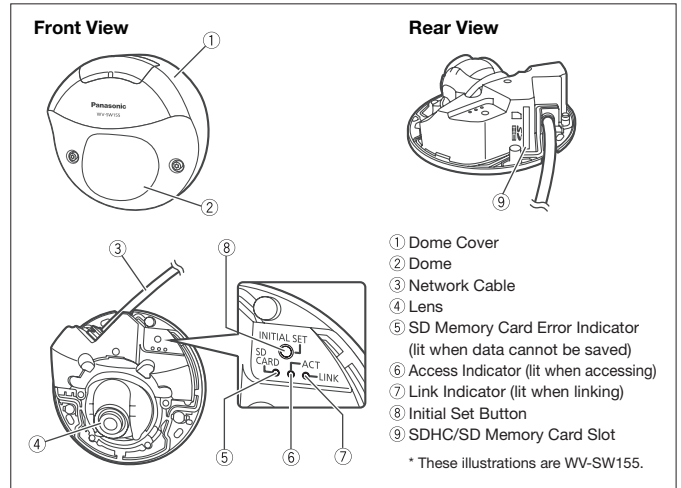
# Specifications

TV System		NTSC	PAL	
<b>Camera</b>	Image Sensor	1/3 type MOS image sensor		
	Effective Pixels	Approx. 1.3 megapixels		
	Scanning Mode	Progressive		
	Scanning Area	4.8 mm (H) x 3.6 mm (V) (3/16" (H) x 5/32" (V))		
	Minimum Illumination	WV-SW155:		
		Color: 0.8 lx (F2.2, Auto slow shutter: Off (1/30s), Gain:On(High)) 0.05 lx (F2.2, Auto slow shutter: Max. 16/30s, Gain:On(High)) *1 BW: 0.6 lx (F2.2, Auto slow shutter: Off (1/30s), Gain:On(High)) 0.04 lx (F2.2, Auto slow shutter: Max. 16/30s, Gain:On(High)) *1		
		WV-SW152:		
		Color: 0.6 lx (F2.2, Auto slow shutter: Off (1/30s), Gain:On(High)) 0.04 lx (F2.2, Auto slow shutter: Max. 16/30s, Gain:On(High)) *1 BW: 0.4 lx (F2.2, Auto slow shutter: Off (1/30s), Gain:On(High)) 0.03 lx (F2.2, Auto slow shutter: Max. 16/30s, Gain:On(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	Indoor scene (50 Hz / 60 Hz) / ELC		
	ELC (Maximum Exposure Time)	ELC (1/30 s) / With Super Dynamic ON		
	ELC (Maximum Exposure Time)	With Super Dynamic OFF ELC (1/30 s), ELC (3/100 s), ELC (3/120 s), ELC (2/100 s), ELC (2/120 s), ELC (1/100 s), ELC (1/120 s), ELC (1/250 s), ELC (1/500 s), ELC (1/1,000 s), ELC (1/2,000 s), ELC (1/4,000 s), ELC (1/10,000 s)		
	Day & Night (Electrical)	OFF / AUTO		
	Digital Noise Reduction	HIGH / LOW		
	Face Detection	ON / OFF (with the XML notification setting)		
	Super Dynamic	ON / OFF		
	Dynamic Range	52 dB typ. (Super Dynamic: ON, Light Control: ELC)		
	Adaptive Black Stretch	ON / OFF		
	AGC	ON (HIGH) / ON (MID) / ON (LOW) / OFF		
	Auto Slow Shutter	OFF (1/30 s), Max. 2/30 s, Max. 4/30 s, Max. 6/30 s, Max. 10/30 s, Max. 16/30 s		
Video Motion Detection	ON / OFF, 4 areas available			
Privacy Zone	ON / OFF (up to 2 zones available)			
VIQS	ON / OFF			
Camera Title	Up to 20 characters (alphanumeric characters, marks), On/Off			
<b>Lens</b>	Focal Length	1.95 mm		
	Zoom Ratio	1x / Extra zoom: 2x (under VGA resolution)		
	Maximum Aperture Ratio	1 : 2.2		
	Adjusting Angle	Ceiling Installation: H: -20° to +20°, V: -20° to +90° Wall Installation: H: -80° to +80°, V: -90° to +20°		
Angular Field of View	Horizontal: 104°, Vertical: 85°			
<b>Browser GUI</b>	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	WV-SW155 / WV-SW152	10Base-T / 100Base-TX, RJ-45 connector (female)	
		WV-SW155M / WV-SW152M	10Base-T / 100Base-TX, M-12 connector (male)	
	Image Resolution	Aspect ratio: [4 : 3]	WV-SW155:	H.264: 1,280 x 960 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG (MJPEG): 1,280 x 960 / 640 x 480 / 320 x 240, up to 30 fps
			WV-SW152:	H.264: 800 x 600 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG (MJPEG): 800 x 600 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps
		Aspect ratio: [16 : 9]	WV-SW155:	H.264: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps JPEG (MJPEG): 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps
			WV-SW152:	H.264: 640 x 360 / 320 x 180, up to 30 fps JPEG (MJPEG): 640 x 360 / 320 x 180, up to 30 fps
	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/Cient	Constant Bit Rate / Best effort: 64 kbps / 128 kbps / 256 kbps / 384 kbps / 512 kbps / 768 kbps / 1,024 kbps / 1,536 kbps / 2,048 kbps / 3,072 kbps / 4,096 kbps / 8,192 kbps (WV-SW155)		
	Image Quality	LOW / NORMAL / FINE		
	Transmission Type	UNICAST / MULTICAST		
	JPEG (MJPEG) *4	Image Quality	0 SUPER FINE / 1 FINE / 2 / 3 / 4 / 5 NORMAL / 6 / 7 / 8 / 9 LOW (10 steps: 0-9)	
	Transmission Type	PULL / PUSH		
	Transmission Interval	0.1 fps - 30 fps (JPEG frame rate will be restricted when displaying both JPEG and H.264 images.)		
	Bandwidth Control	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 (When the FTP transmission is failed, backup on an optional SDHC/SD memory card is available.)			
Multi-Screen	Up to 16 camera images can be displayed simultaneously on a multi-screen. (Including the camera itself)			
Maximum Concurrent Access Number	14 (Depends on network conditions)			
SDHC/SD Memory Card (Option)	Manufactured by Panasonic SDHC memory card: 4 GB, 8 GB, 16 GB, 32 GB SD memory card: 256 MB, 512 MB, 1 GB, 2 GB (except miniSD card and microSD card)			

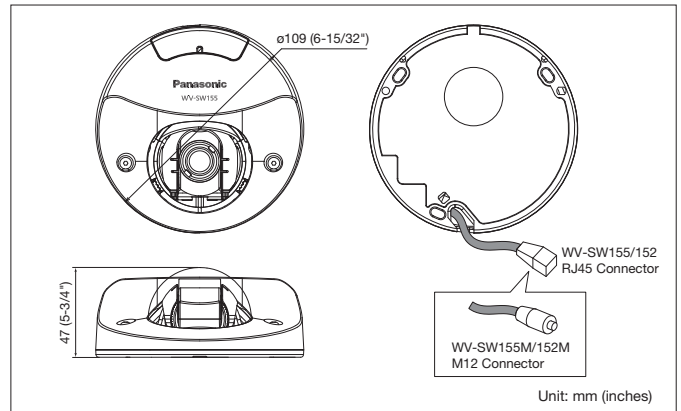
TV System		NTSC	PAL
<b>Network</b>	Cellular Phone Compatibility	JPEG image	
	Mobile terminal compatibility	iPad, iPhone, iPod touch	
<b>Alarm</b>	Alarm Source	VMD, Command alarm	
	Alarm Actions	E-mail notification, Indication on browser, FTP image transfer, Panasonic protocol output	
	Alarm Log	ON / OFF	
	Schedule	VMD	
<b>General</b>	Power Source/Consumption	PoE (IEEE802.3af compliant) / PoE 48 V: 56 mA (Class 1 device)	
	Ambient Operating Temperature/Humidity	-30 °C ~ +50 °C (14 °F ~ 122 °F) / Less than 90 % (no condensation)	
	Waterproof	Camera: IP66 (IEC60529) *5	
	Shock Resistance	Compliant with 50 J IEC60068-2-75	
	Dimensions	ø109 mm x 47 mm (H) (ø6-15/32" x 5-3/4" (H))	
	Mass (approx.)	350 g (0.77 lbs.)	
	Finish	Main body: Aluminum die cast, light gray, Dome section: Clear polycarbonate resin	

- \*1 Converted value
- \*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®.
- \*4 Transmission for 2 streams can be individually set in the same compression method.
- \*5 Only when installation work specified in this book is properly performed and appropriate waterproof treatment is performed.

## Part Names and Functions



## Appearance



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- "Super Dynamic", "SDII", "SDIII", "SD5", "SD5Link", "i-PRO" and "i-PRO SmartHD" logos are trademarks or registered trademarks of Panasonic Corporation.

### 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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