Panasonic
ideas for life

Super Dynamic HD Vandal Resistant Dome Network Camera
WV-SW155 / WV-SW155M
Super Dynamic Vandal Resistant Dome Network Camera
WV-SW152 / WV-SW152M

WV-SW155/WV-SW152

Front View

WV-SW155/WV-SW152

i-PRO **SmartHD**

MEGA *Super Dynamic* (WV-SW155)

Super Dynamic (WV-SW152)

ONVIF (WV-SW155)

IP66 standard | **HD** High Definition | **Vandal Resistant**

H.264 JPEG | Face Detection | day/night

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®", 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.
- Important Safety Instructions........1 pc.
- CD-ROM*1 ....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.

- Mount Bracket...............................1 pc.
- Tamperproof Screw Bit ....1 pc.
- Waterproof Tape ....1 pc.

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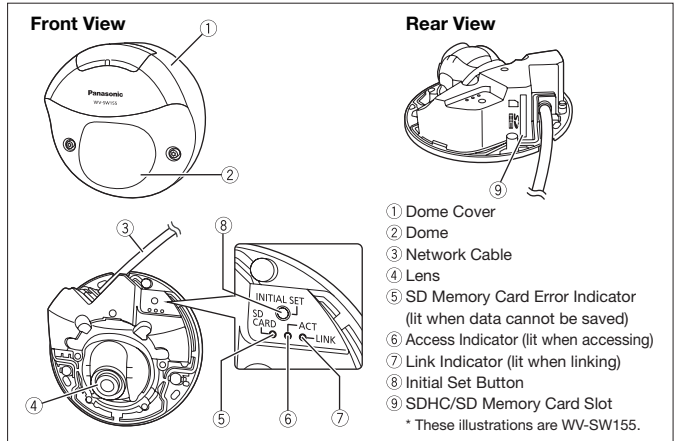*2 This label may be required for network management. The network administrator shall retain the code label.

Specifications

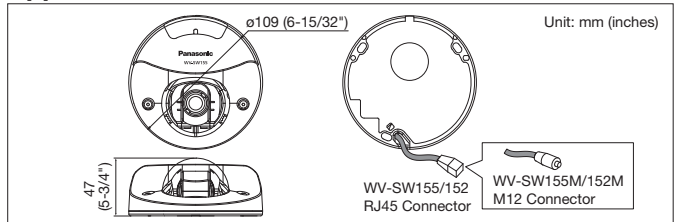| TV System		NTSC	PAL
Camera	Image Sensor	1/3 type MOS Sensor	
	Effective Pixels	Approx. 1.3 megapixel	
	Scanning Mode	Progressive	
	Scanning Area	4.8 mm (H) x 3.6 mm (V) (3/16" (H) × 5/32" (V))	
	Minimum Illumination	WV-SW155:	
		Color: 0.8 lx (F2.2, Auto slow shutter: Off (1/30s), Gain: On (High))	
		0.05 lx (F2.2, Auto slow shutter: Max. 16/30s, Gain: On (High)) *1	
		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	
	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 — With Super Dynamic ON	ELC (1/30 s)	
	Shutter Speed — 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)	
	Super Dynamic	ON / OFF	
	Face Super Dynamic	ON / OFF (Only at Super Dynamic: ON)	
	Adaptive Black Stretch	ON / OFF	
	AGC	ON (HIGH) / ON (MID) / ON (LOW) / OFF	
	Electronic Sensitivity UP	OFF (1/30 s), Max. 2/30 s, Max. 4/30 s, Max. 6/30 s, Max. 10/30 s, Max. 16/30 s	
	Day & Night(electrical)	OFF / AUTO	
	Dynamic Range	52 dB typ. (Super Dynamic: ON, Light Control: ELC)	
	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	
	Focus Adjustment	MANUAL	
Lens	Focal Length	1.95 mm	
	Zoom Ratio	1x / Extra zoom: 2x (under VGA resolution)	
	Angular Field of View	Horizontal: 104 °, Vertical: 85 °	
	Maximum Aperture Ratio	1 : 2.2	
	Focusing Range	0.5 m ~ ∞	
Adjusting Angle		Ceiling Installation Horizonatal: -20 ° to +20 ° Vertical: -20 ° to +90 °	
		Wall Installation Horizonatal: -80 ° to +80 ° Vertical: -90 ° to +20 °	
Browser GUI	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.	
	SD Memory Data Download	Still or motion Images recorded in the SDHC/SD memory card can be downloaded.	
	GUI/Setup Menu Language	English, Italian, French, German, Spanish, Chinese, Russian, Japanese	
	System Log	Up to 100 (Internal), Up to 4,000 (SDHC/SD memory when the recording format is set to JPEG.) error logs	
	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	
Network	Network IF — WV-SW155 / WV-SW152	10Base-T / 100Base-TX, RJ-45 connector (female)	
	Network IF — WV-SW155M / WV-SW152M	10Base-T / 100Base-TX, M12 connector (male)	
	Image Resolution *3 *4 — 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: 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: 800 × 600 / VGA (640 × 480) / QVGA (320 × 240), up to 30 fps	
	Image Resolution *3 *4 — Aspect ratio: [16 : 9]	WV-SW155: 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-SW152: 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/ MPEG-4 *5 *6 — Transmission Mode	Constant bitrate / Framerate priority / Best effort	
	H.264/ MPEG-4 *5 *6 — Frame Rate	1 / 3 / 5 / 7.5 / 10 / 15 / 20 / 30 fps	1 / 3 / 5 / 7.5 / 10 / 12 / 15 / 20 / 30 fps
	H.264/ MPEG-4 *5 *6 — 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-SW155)	
	H.264/ MPEG-4 *5 *6 — Image Quality	LOW / NORMAL / FINE	
	H.264/ MPEG-4 *5 *6 — Transmission Type	UNICAST / MULTICAST	
	JPEG — Image Quality	10 steps	
	JPEG — Refresh Interval	0.1 fps ~ 30 fps	
	JPEG — Transmission Type	PULL / PUSH	
	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	

TV System		NTSC	PAL
Network	FTP Client	Alarm image transmission, FTP periodic transmission (When the FTP transmission is failed, backup on an optional SDHC/SD memory card is available.)	
	No. of Simultaneous Users	Up to 14 users (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	
	Face Detection	ON / OFF (with XML notification)	
	Cellular Phone Compatibility	JPEG image	
	Mobile Terminal Compatibilty	iPad, iPhone, iPod touch	
Alarm	Alarm Source	VMD, Command alarm	
	Alarm Actions	SDHC/SD memory recording, E-mail notification, Indication on browser, FTP image transfer, Panasonic protocol output	
	Alarm Log	With SDHC/SD memory card: 5,000 logs, without SDHC/SD memory card: 1,000 logs	
	Schedule	VMD	
General	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) / PoE 48 V: 56 mA (Class 1 device)	
	Ambient Operating Temperature	–30 °C ~ +50 °C (–22 °F ~ 122 °F)	
	Ambient Operating Humidity	Less than 90 % (no condensation)	
	Impact Protection	IEC 60068-2-75 test Eh, 50 J / IEC 62262 IK10	
	Water and Dust Resistance	Camera: IP66 (IEC60529) *5	
	Railway Application	EN50155, EN50121	
	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

Front View **Rear View**

① Dome Cover
② Dome
③ Network Cable
④ Lens
⑤ SD Memory Card Error Indicator (lit when data cannot be saved)
⑥ Access Indicator (lit when accessing)
⑦ Link Indicator (lit when linking)
⑧ Initial Set Button
⑨ SDHC/SD Memory Card Slot
* These illustrations are WV-SW155.

Appearance

ø109 (6-15/32")
Unit: mm (inches)
47 (5-3/4")
WV-SW155/152 RJ45 Connector
WV-SW155M/152M M12 Connector

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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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