Panasonic

Super Dynamic HD Vandal Resistant Fixed Dome Network Camera
WV-SW355

Super Dynamic Vandal Resistant Fixed Dome Network Camera
WV-SW352

WV-SW355   WV-SW352

i-PRO SmartHD

MEGA *Super Dynamic* (WV-SW355)

Super Dynamic (WV-SW352)

ONVIF (WV-SW355)

IP66 standard | NO HUMIDICATION | **HD** High Definition 720 | Vandal Resistant

H.264 MPEG-4 JPEG | Auto Back Focus | day/night IR removable

HD / 1,280 x 960 H.264 Vandal Resistant Network Camera featuring *Super Dynamic* (WV-SW355)
SVGA / 800 x 600 H.264 Vandal Resistant Network Camera featuring *Super Dynamic* (WV-SW352)

Key Features

- 720p HD images up to 30 fps (WV-SW355)
- Newly developed 1.3 Megapixel high sensitivity MOS Sensor (WV-SW355)
- Super high resolution at SVGA/800 x 600 created by newly developed 1.3 Megapixel high sensitivity MOS Sensor (WV-SW352)
- 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-SW355)
- Full frame (Up to 30 fps) transmission at SVGA/800 x 600 image size (WV-SW352)
- *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.
- H.264 and MPEG-4 are selectable for system migration.
- High sensitivity with True Day/Night function:
  WV-SW355: 0.3 lx (Color), 0.05 lx (B/W) at F1.6 (Wide)
  WV-SW352: 0.2 lx (Color), 0.04 lx (B/W) at F1.6 (Wide)
- 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.
- ABF (Auto Back Focus) ensures easy installation.
- Digital Noise Reduction: 3D-DNR ensures noise reduction in various conditions.
- Electronic sensitivity enhancement: Auto (Up to 16x) / OFF
- Up to 7.2x Extra Optical Zoom at VGA resolution.
  2.8-10 mm, 3.6x vari-focal auto iris lens (5.6-20 mm, 7.2x with Extra Optical Zoom under VGA)
- VMD (Video Motion Detector) with 4 programmable detection areas, 15 steps sensitivity level and 10 steps detection size
- Privacy Zone can mask up to 2 private areas, such as house windows and entrances/exits.
- Alarm sources including 1 terminal input, VMD and Panasonic alarm command can trigger actions such as SDHC/SD memory recording, FTP image transfer, E-mail notification, Indication on browser, Alarm terminal output, and Panasonic 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.
- SDHC/SD Memory card slot for manual recording (H.264 / JPEG), alarm recording (H.264 / JPEG) and backup upon network failure (JPEG)
- H.264/MPEG-4 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.
- Multi-language GUI and setup menu: English, French, Italian, Spanish, German, Russian (PAL) / English, French (NTSC) * Installation required except for English
- IPv4/IPv6 protocol supported
- Supports SSL, DDNS (viewnetcam, RFC2136)
- Still images (JPEG) can be viewed on mobile phones via Internet.
- ONVIF compliant model
- Analog Monitor output for easier installation
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard.
- Dehumidification device for use in various weather conditions
- Vandal resistant mechanism for high reliability
- Optional heater maintains operating temperature –30 °C ~ +50 °C (–22 °F ~ 122 °F)

Standard Accessories

- Installation Guide .... 1 pc.
- CD-ROM*1 .... 1 pc.
- Code Label*2 .... 1 pc.

The followings are for installation.
- 4P Alarm Cable .... 1 pc.
- Camera Attachment .... 1 pc.
- 2P Power Cable .... 1 pc.
- Fixing Screws (M4 x 8 mm)
  .... 5 pcs. (of them, 1 for spare)

- Base Cover.................................... 1 pc.
- Mount Bracket.............................. 1 pc.
- Bit for Tamperproof Screw........... 1 pc.
- Butyl Tape .... 1 pc.

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

Optional Accessories

Embedded
Ceiling Mount Bracket
WV-Q169

Smoke Dome Cover
WV-CW4S

Heater Unit
WV-SW3H

Specifications

TV System		NTSC	PAL
Camera	Image Sensor	1/3 type MOS Sensor	
	Effective Pixels	Approx. 1.3 megapixel	
	Scanning Mode	Progressive scan	
	Scanning Area	4.8 mm (H) x 3.6 mm (V)	
	Minimum Illumination	WV-SW355: Color: 0.3 lx, B/W: 0.05 lx at F1.6 (Shutter: 1/30 s, AGC: High) Color: 0.019 lx, B/W: 0.003 lx at F1.6 (Shutter: 16/30 s, AGC: High) WV-SW352: Color: 0.2 lx, B/W: 0.04 lx at F1.6 (Shutter: 1/30 s, AGC: High), Color: 0.013 lx, B/W: 0.002 lx at F1.6 (Shutter: 16/30 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	Outdoor: Automatic integration of ALC and ELC Indoor [50 Hz]: Automatic integration of ALC and ELC (up to 1/100 s) Indoor [60 Hz]: Automatic integration of ALC and ELC (up to 1/120 s)	
	Shutter Speed	Fix shutter: 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 (only at Super-Dynamic Off)	
	Super Dynamic	ON / OFF	
	Face Super Dynamic	ON / OFF (Only at Super Dynamic: ON)	
	Adaptive Black Stretch	ON / OFF (Only at Super Dynamic: OFF)	
	AGC	ON (LOW, MID, HIGH) / OFF	
	Electronic Sensitivity UP	OFF / AUTO (Max. 2x (2/30 s), 4x (4/30 s), 6x (6/30 s), 10x (10/30 s), 16x (16/30 s))	
	Black and White Mode	Mode:AUTO1 / AUTO2 / ON / OFF, Level:High / Low, with external control	
	Dynamic Range	52 dB typ. (Super Dynamic: On, Light control mode: indoor)	
	Digital Noise Reduction	High / Low	
	Video Motion Detection	4 areas, Sensitivity: 15 steps, Detection size: 10 steps	
	Privacy Zone	Up to 2 zones, Gray	
	VIQS	ON / OFF	
	Camera Title (OSD)	Up to 20 characters (alphanumeric characters, marks)	
	Focus Adjustment	ABF / MANUAL	
Lens	Vari Focal Length	2.8 mm ~ 10 mm, 3.6x (5.6 mm ~ 20 mm, 7.2x with extra optical zoom (under VGA))	
	Angular Field of View	H: 27.7° (TELE) ~ 100.8° (WIDE), V: 20.8° (TELE) ~ 73.8° (WIDE)	
	Maximum Aperture Ratio	1 : 1.6 (WIDE) ~ 1 : 3.6 (TELE)	
	Focusing Range	0.3 m ~ ∞	
Adjusting Angle		Horizontal: 180 ° (clockwise), 160 ° (counter clockwise), Vertical: ±75°, Image tilt adjustment range: ±100°	
Browser GUI	Camera Control	Brightness, AUX ON / OFF	
	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)	
	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	
	SD Memory Data Download	Still or motion Images recorded in the SDHC/SD memory card can be downloaded.	
	GUI/Setup Menu Language	English, French (Installation required for French)	English, French, Italian, Spanish, German, Russian (Installation required except for English)
	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 *1 *2	Microsoft® Windows® 7 Professional 64 bit/32 bit, Microsoft® Windows Vista® Business SP1 32 bit, Microsoft® Windows® XP Professional SP3	
	Supported Browser	Windows® Internet Explorer® 8.0 32 bit (Microsoft® Windows® 7 Professional 64 bit/32 bit), Windows® Internet Explorer® 7.0 (Microsoft® Windows Vista® Business SP1 32 bit), Microsoft® Internet Explorer® 6.0 SP3 (Microsoft® Windows® XP Professional SP3)	
Network	Network IF	10Base-T / 100Base-TX, RJ-45 connector	
	Image Resolution *3 *4 — Aspect ratio: [4 : 3]	WV-SW355: H.264: 1,280 × 960 / VGA (640 × 480) / QVGA (320 × 240), up to 30 fps MPEG-4: VGA (640 × 480) / QVGA (320 × 240), up to 30 fps JPEG (M-JPEG): 1,280 × 960 / VGA (640 × 480) / QVGA (320 × 240), up to 30 fps WV-SW352: H.264: 800 × 600 / VGA (640 × 480) / QVGA (320 × 240), up to 30 fps MPEG-4: VGA (640 × 480) / QVGA (320 × 240), up to 30 fps JPEG (M-JPEG): 800 × 600 / VGA (640 × 480) / QVGA (320 × 240), up to 30 fps	
	Aspect ratio: [16 : 9]	WV-SW355: H.264: 1,280 × 720 / 640 × 360 / 320 × 180, up to 30 fps JPEG (M-JPEG): 1,280 × 720 / 640 × 360 / 320 × 180, up to 30 fps WV-SW352: H.264: 640 × 360 / 320 × 180, up to 30 fps JPEG (M-JPEG): 640 × 360 / 320 × 180, up to 30 fps	
	H.264/ MPEG-4 *5 *6 — 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 (SW355)	
	Image Quality	LOW / NORMAL / FINE	
	Refresh Interval	0.1 fps ~ 30 fps	
	Transmission Type	UNICAST / MULTICAST	
	JPEG — Image Quality	10 steps	
	Transmission Type	PULL / PUSH	
	Audio Compression	G.726 (ADPCM) 32 kbps / 16 kbps, G.711 64 kbps	
	Audio Mode	OFF / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duplex)	
	Authentication for Audio	Level 1 only / Level 2 higher / All users	

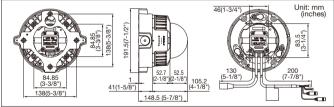| TV System		NTSC	PAL
Network	Total Bit Rate	64 / 128 / 256 / 384 / 512 / 768 / 1,024 / 2,048 / 4,096 / 8,192 kbps / Unlimited	
	Supported Protocol	IPv6: TCP/IP, UDP/IP, HTTP, HTTPS, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6 IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP	
	FTP Client	Alarm image transmission, FTP periodic transmission (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)	H.264 recording: Manual REC / Alarm REC (Pre/Post) / Schedule REC JPEG recording: Manual REC / Alarm REC (Post) / Backup upon network failure Compatible SD (SDHC) card: Panasonic 256 MB, 512 MB, 1 GB, 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB* model * SDHC card	
	Cellular Phone Compatibility	JPEG image, AUX control (by access level)	
Alarm	Alarm Source	1 terminal input, VMD, Command alarm	
	Alarm Actions	SDHC/SD memory recording, E-mail notification, Alarm terminal output, 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	Alarm / VMD / Access permission / H.264 recording	
Input/ Output	Monitor Output (for adjustment)	VBS: 1.0 V [p-p]/75 Ω, NTSC composite, RCA Jack	VBS: 1.0 V [p-p]/75 Ω, PAL composite, RCA Jack
	Microphone/Line Input	MIC IN and Line IN are selectable. ø3.5 mm stereo mini jack (monaural input) (Applicable microphone: Plug-in power type) Supply voltage: 2.5 V ±0.5 V Input impedance: approx. 2 kΩ	
	Audio Output	ø3.5 mm stereo mini jack (monaural output) Line level	
	External I/O Terminals	ALARM IN, DAY/NIGHT IN, ALARM OUT, AUX OUT	
General	Safety/EMC Standard	UL (UL60950-1), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60950-1), DOC (ICES003 ClassA)	CE (EN55022 ClassB, EN55024)
	Power Source and Power Consumption	12 V DC: 300 mA, 1.1 A *7 * FOR UL LISTED MODEL(S), ONLY CONNECT 12 V DC CLASS 2 POWER SUPPLY. PoE (IEEE 802.3af compliant) 48 V: 80 mA, 240 mA *7 (Class 0 device)	
	Ambient Operating Temperature	-10 °C ~ +50 °C (14 °F ~ 122 °F), –30 °C to +50 °C (–22 °F to 122 °F) *7	
	Ambient Operating Humidity	90 % or less (without condensation)	
	Impact Protection	IEC 60068-2-75 test Eh, 50 J / IEC 62262 IK10	
	Water and Dust Resistance	IP66, IEC60529 measuring standard compatible	
	Dimensions	ø164 mm x 148.5 mm (H), 191.5 mm (W) (Base Cover) (ø6-15/32" x 5-7/8" (H), 7-9/16" (W) (Base Cover))	
	Mass (approx.)	1.6 kg (3.53 lbs.)	

*1 Refer to "Notes on Windows Vista® / Windows® 7" (PDF) 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. *2 When using IPv6 for communication, use Microsoft Windows 7 or Microsoft Windows Vista. *3 MPEG-4 is not supported. *4 [4 : 3] and [16 : 9] are alternative. *5 H.264 and MPEG-4 are alternative. *6 Transmission for 2 streams can be individually set in the same compression method. *7 With optional Heater Unit WV-SW3H

Part Names and Functions

① Panning Lock Screw
② Panning Table
③ SDHC/SD Memory Card Slot
④ Monitor Out Connector for Adjustment
⑤ Initial Set Button
⑥ Auto Focus (AF) Button / Extra Optical Zoom Button
⑦ Heater Unit (Option) Connector
⑧ Link Indicator (Lighting at Linking)
⑨ Access Indicator (Blinking at Accessing)
⑩ SD Memory Card Error Indicator / Auto Focus Indicator (Blinking at Adjusting Auto Focus)
⑪ Focus Ring
⑫ Zoom Lock Knob
⑬ Zoom Ring
⑭ Tilting Lock Screw (x2)
⑮ Tilting Table
⑯ Azimuth Adjustment Ring

Appearance

Unit: mm (inches)

84.85 (3-3/8")
 138(5-3/8")
 191.5(7-1/2")
 41(1-5/8")
 148.5 (5-7/8")
 52.7 (2-1/8")
 52.5 (2-1/8")
 105.2 (4-1/8")
 46(1-3/4")
 83.5 (3-1/4")
 130 (5-1/8")
 200 (7-7/8")

Trademarks and registered trademarks
– Microsoft, and Windows are registered trademarks of Microsoft Corporation in the U.S. and other countries.
– UniPhier is a registered trademark of Panasonic Corporation.
– "MEGA Super Dynamic" "Super Dynamic"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 cannot be responsible for the performance of the network and/or other manufacturers' products used 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.

DISTRIBUTED BY:

Panasonic

http://security.panasonic.com
http://www.facebook.com/PanasonicNetworkCamera

Printed in Japan (2A-069AL)