Panasonic
ideas for life

i-PRO **SmartHD**

MEGA *SuperDynamic*

ONVIF

IP**66** standard

day/night

H.264 MPEG-4 JPEG

HD HighDefinition

Face Detection

HD / 1,280 x 960 H.264 Network Camera featuring *Super Dynamic*

Key Features

- 720p HD images up to 30 fps
- Newly developed 1.3 Megapixel high sensitivity MOS Sensor
- 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
- *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 Day/Night (Electrical) function : 0.3 lx (Color), 0.2 lx (B/W) at F1.3 (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.
- 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 under 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
- Face detection function detects the position of human face and the information is sent by XML or video stream.
- Meta data for VMD is supplied to work with the WJ-NV200 /WJ-ND400 playback VMD function.
- Privacy Zone can mask up to 2 private areas, such as house windows and entrances/exits.
- Alarm sources including VMD and Panasonic alarm command can trigger actions such as FTP image transfer, E-mail notification, Indication on browser, and Panasonic 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/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: 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
- Analog Monitor output for easier installation
- IP66 rated water and dust resistant. Compatible with IEC60529 measurement standard.

Standard Accessories

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

The followings are for installation.
- Camera mount bracket .... 1 pc.
- Mount bracket cover ....2 pcs.

- Waterproof tape...............................1 pc.
- Camera fixing screw (M4 x 8) ....4 pcs. (of them, 1 for spare)
- Mount bracket cover screw (M3 x 6) ....3 pcs. (of them, 1 for spare)
- Desiccant ....1 pc.

*1 The CD-ROM contains the operating instructions (HTML, 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.

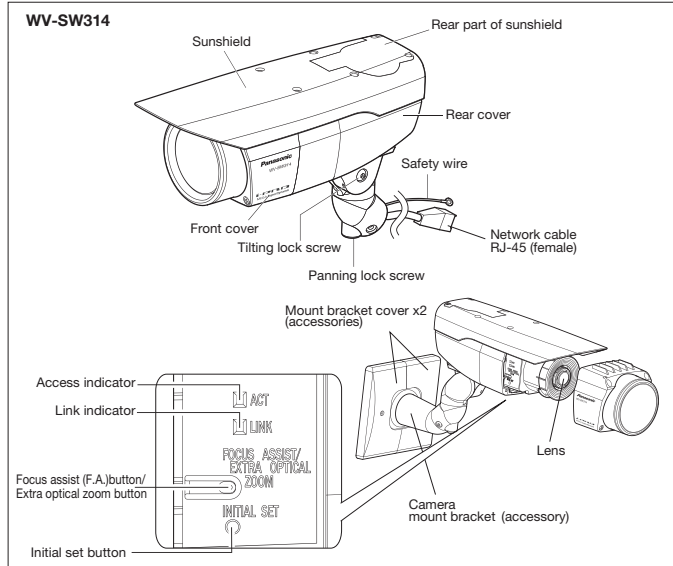## Optional Accessory

Adapter Box
WV-Q120

Specifications

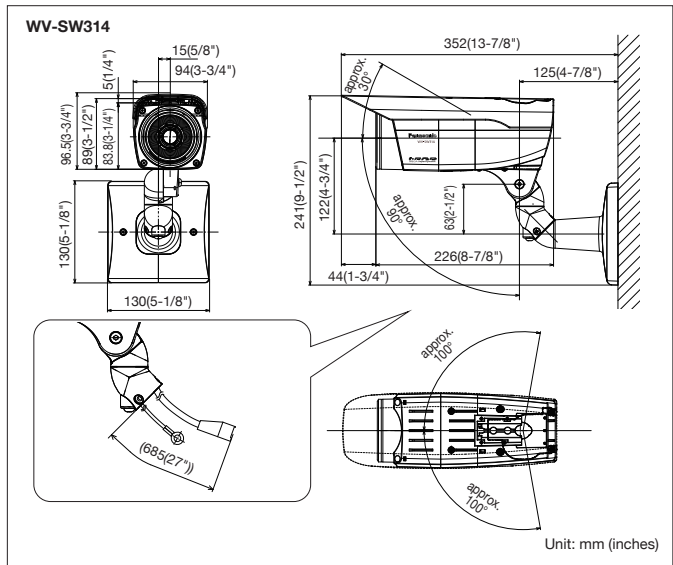| TV System		NTSC
Camera	Image Sensor	1/3 type MOS Sensor
	Effective Pixels	Approx. 1.3 megapixels
	Scanning Mode	Progressive scan
	Scanning Area	4.80 mm (H) x 3.60 mm (V) (3/16"(H) x 5/32"(V))
	Minimum Illumination	Color: 0.3 lx, B/W: 0.2 lx at F1.3 (Shutter: 1/30 s, AGC: High), Color: 0.019 lx, B/W: 0.013 lx at F1.3 (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, 1/1,000, 1/2,000, 1/4,000, 1/10,000 (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))
	Day & Night (Electrical)	OFF / AUTO
	Dynamic Range	52 dB typ. (Super Dynamic: On, Light control mode: indoor scene)
	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	Focus Assist
Lens	Focal Length	2.8 mm ~ 10 mm, 3.6x (5.6 mm ~ 20 mm, 7.2x with extra optical zoom (at VGA))
	Angular Field of View	H: 27.7° (TELE) ~ 100.3° (WIDE), V: 20.8° (TELE) ~ 73.6° (WIDE)
	Maximum Aperture Ratio	1 : 1.3 (WIDE) ~ 1 : 3.1 (TELE)
	Focusing Range	0.3 m ~ ∞
Adjusting Angle		Horizontal: ±100° (Camera mount bracket) Vertical: +30°, -90° (Camera mount bracket)
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)
	Alarm Control	Reset
	One Shot Capture	A still picture will be displayed on a newly opened window.
	GUI/Setup Menu Language	English, French, Italian,Spanish, German, Russian,Chinese, Japanese
	Supported OS [*1][*2]	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	10Base-T / 100Base-TX, RJ-45 connector
	Image Resolution [*4] — Aspect ratio: [4 : 3]	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
	Image Resolution [*4] — Aspect ratio: [16 : 9] [*3]	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
	H.264/MPEG-4 [*5][*6] — Transmission Mode	Constant bitrate / Framerate priority / Best effort
	Frame Rate	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
	Image Quality	LOW / NORMAL / FINE
	Refresh Interval	0.2 s ~ 5 s
	Transmission Type	UNICAST / MULTICAST
	JPEG — Image Quality	10 steps
	Refresh Interval	0.1 fps ~ 30 fps
	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, MLD, ICMP, ARP IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP,SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP
	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)
	Mobile Terminal Compatibility [*7]	iPad, iPhone, iPod touch (iOS 4.2.1 or later) Android™ mobile terminals
Alarm	Alarm Source	VMD, Command alarm
	Alarm Actions	E-mail notification Indication on browser, FTP image transfer, Panasonic protocol output
	Schedule	VMD / Access permission / H.264 recording
Input/ Output	Monitor Output (for adjustment)	VBS: 1.0 V [p-p]/75 Ω, NTSC composite, RCA Jack
General	Safety/EMC Standard	UL (UL60950-1), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60950-1), DOC (ICES003 ClassA)
	Power Source and Power Consumption	PoE (IEEE 802.3af compliant) 48 V: 70 mA (Class 0 device)
	Ambient Operating Temperature	-10 °C ~ +50 °C (14 °F ~ 122 °F)
	Ambient Operating Humidity	90 % or less (without condensation)
	Water and Dust Resistance	IP66, IEC60529 measuring standard compatible

TV System		NTSC
General	Dimensions	94 mm (W) × 89 mm (H) × 226 mm (L) (3-7/10" (W) × 3-1/2" (H) × 8-7/8" (L))
	Mass (approx.)	1.3 kg (2.87 lbs.)
	Finish	Main body: Aluminum die cast/resin, metallic silver coating Front cover section clear part: Polycarbonate resin

*1 For further information about PC system requirements and precautions for when using Microsoft Windows 7, Microsoft Windows Vista, or Windows Internet Explorer, click "Manual"-"Open" from the supplied CD-ROM and refer to "Notes on Windows / Internet Explorer versions".
For information on the camera models of the supported operating systems, refer to our website (http://panasonic.net/pss/security/support/index.html).
*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 For further information about compatible devices, refer to our website (http://panasonic.net/pss/security/support/info.html).

Part Names and Functions

WV-SW314

Appearance

WV-SW314

Unit: mm (inches)

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