



## 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 at VGA resolution.
- 2.8-10 mm, 3.6x vari-focal auto iris lens (5.6-20 mm, 7.2x with Extra Optical Zoom at 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 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.
- Fog compensation

### Standard Accessories

- |                                 |                                    |
|---------------------------------|------------------------------------|
| • Installation Guide .....1 pc. | • Waterproof tape.....1 pc.        |
| • CD-ROM*1 .....1 pc.           | • Camera fixing screw (M4 x 10)    |
| • Code Label*2.....1 pc.        | .....4 pcs. (of them, 1 for spare) |
- The followings are for installation.
- |                                    |                                      |
|------------------------------------|--------------------------------------|
| • Camera mount bracket ..... 1 pc. | • Mount bracket cover screw (M3 x 6) |
| • Mount bracket cover .....2 pcs.  | .....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



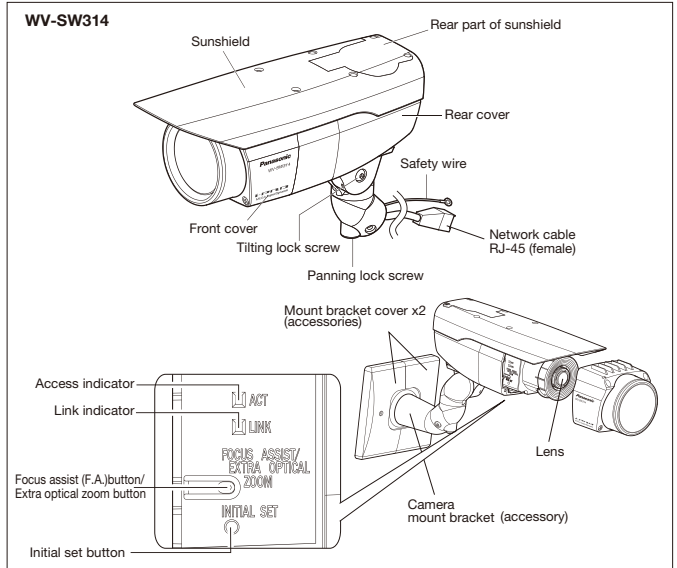
# Specifications

TV System		NTSC	
<b>Camera</b>	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	Shutter: 1/30, 1/100, 1/200, 1/400, 1/800, 1/1,600, 1/3,200, 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		
<b>Lens</b>	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 - ∞	
<b>Adjusting Angle</b>	Horizontal	±100° (Camera mount bracket)	
	Vertical	+30°, -90° (Camera mount bracket)	
<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)	
	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 <sup>1,2</sup>	Microsoft® Windows® 8, Microsoft® Windows® 7, Microsoft® Windows Vista®, Microsoft® Windows® XP SP3	
	Supported Browser	Windows® Internet Explorer® 10.0 (32-bit) 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 <sup>1</sup>	Aspect ratio: [4:3]	H.264: 1,280 x 960 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps MPEG-4: VGA (640 x 480) / QVGA (320 x 240), up to 30 fps JPEG (M-JPEG): 1,280 x 960 / VGA (640 x 480) / QVGA (320 x 240), up to 30 fps
		Aspect ratio: [16:9]	H.264: 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps JPEG (M-JPEG): 1,280 x 720 / 640 x 360 / 320 x 180, up to 30 fps
	H.264/MPEG-4 <sup>3,4</sup>	Transmission Mode	Constant bitrate / Framerate priority / Best effort / Advanced VBR
		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)		
Mobile Terminal Compatibility <sup>7</sup>	iPad, iPhone, iPod touch (iOS 4.2.1 or later) Android™ mobile terminals		
<b>Alarm</b>	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		
Monitor Output (for adjustment)	VBS: 1.0 V [p-p]/75 Ω, NTSC composite, RCA Jack		
<b>General</b>	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	

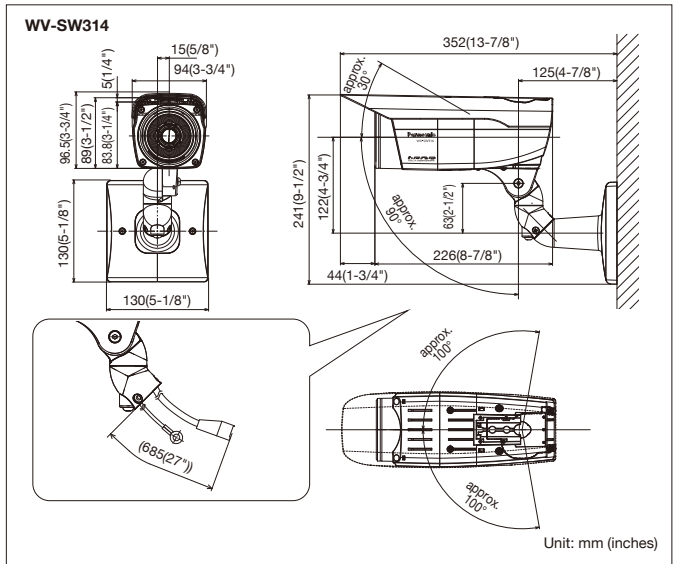
TV System		NTSC
General	Dimensions	94 mm (W) x 89 mm (H) x 226 mm (L) (3-7/10" (W) x 3-1/2" (H) x 8-7/8" (L))
	Mass (approx.)	1.3 kg (2.87 lbs.)
	Finish	Main body: Aluminum die cast/resin, metallic silver coating Front cover section clear part: Polycarbonate resin

- \*1 For further information about PC system requirements and precautions for using Microsoft® Windows® 8, 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://security.panasonic.com/pss/security/>).
- \*2 When using IPv6 for communication, use Microsoft® Windows® 8 or 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://security.panasonic.com/pss/security/support/info.html>).

## 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 cannot be responsible for the performance of the network and/or other manufacturers' products used on the network.

- Masses and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.

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