Panasonic

i-PRO SmartHD

ONVIF

H.264 MPEG-4 JPEG | HD High Definition 720 | day/night

HD/1,280 x 960 H.264 Fixed Dome Network Camera

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
- Wide Dynamic Range and ABS (Adaptive Black Stretch) technologies deliver wider dynamic range compared with conventional cameras.
- Face Wide Dynamic Range technology ensures clear face image.
- H.264 and MPEG-4 are selectable for system migration.
- High sensitivity with Simple Day/Night 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.
- Focus Assist ensures easy installation.
- 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.
- Superior color reproduction by primary (RGB) color filter
- Electronic sensitivity enhancement: Auto (Up to 16x) / OFF
- Selectable light control modes: Outdoor / Indoor / Fixed electronic shutter
  Outdoor / Indoor: Electronic shutter and ALC lens iris control are automatically controlled depending on the mode and luminance level.
  Fixed electronic shutter: Up to 1/10,000 fixed electronic shutter can be selectable.
- 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.
- 2x extra zoom at VGA resolution
- 2x, 4x digital zoom controlled by browser
- Camera title display: Up to 20 alphanumeric characters on the browser, Up to 20 alphanumeric characters embedded in the image
- 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.
- Alarm log, Manual REC log, FTP error log saved in the SDHC/SD memory card is displayed on the browser GUI and can be downloaded to the client PC. Playback or Image data download through the log is also available.
- Internet mode: H.264/MPEG-4 images can be transmitted over HTTP protocol.
- Multi-language: English / Italian / French / German / Spanish / Russian / Chinese / Japanese
- IPv4/IPv6 protocol supported
- Supports DDNS (viewnetcam, RFC2136)
- Still images (JPEG) can be viewed on mobile phones via Internet.
- Analog Monitor output for easier installation
- 2.8 mm ~ 10 mm, 3.6x Varifocal Auto Iris lens
- ONVIF compliant model
- Fog compensation

Standard Accessories

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

The followings are for installation.
- Power Cord Plug .... 1 pc.
- External I/O Terminal Plug............ 1 pc.

- Installation Template Label .... 1 pc.
- Cable Tie .... 2 pcs. (incl. 1 spare)

*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 (Sail white) **WV-Q174**	Embedded Ceiling Mount Bracket (AV-light gray) **WV-Q168**	Smoke Dome Cover **WV-CF5S**	Ceiling Mount Bracket **WV-Q105**
	* Different from the color of the camera.		

Specifications

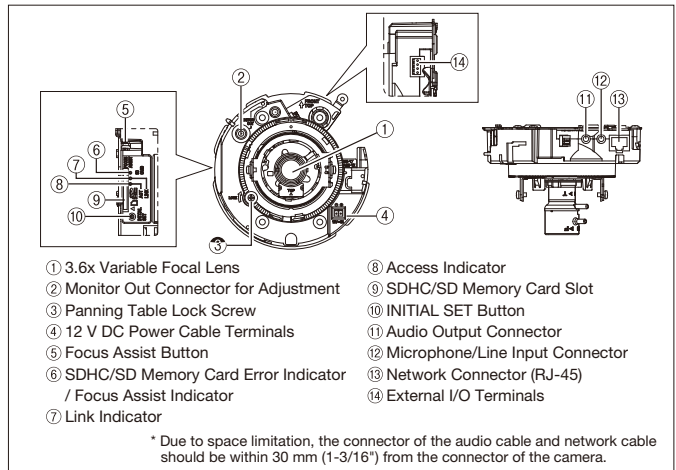| TV System		NTSC	PAL
Camera	Image Sensor	1/3 type MOS Sensor	
	Effective Pixels	Approx. 1.3 megapixel	
	Scanning Mode	Progressive scan	
	Scanning Area	4.8 mm (H) x 3.6 mm (V) {3/16 inches (H) x 5/32 inches (V)}	
	Minimum Illumination	Color: 0.3 lx, B/W: 0.2 lx at F1.3 (Shutter: 1/30 s, AGC: High), Color: 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: OFF (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	
	Wide Dynamic Range	ON / OFF	
	Face Wide Dynamic Range	ON / OFF (Only at Wide Dynamic Range: ON)	
	Adaptive Black Stretch	ON / OFF (Only at Wide Dynamic Range: 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))	
	Simple Day/Night Mode	AUTO / OFF	
	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 alphanumeric characters	
	Focus Adjustment	Focus Assist	
Lens	Vari Focal Length	2.8 mm ~ 10 mm, 3.6x varifocal	
	Angular Field of View	H: 27.7° (Tele) ~ 100.3° (Wide), V: 20.8° (Tele) ~ 73.5° (Wide)	
	Maximum Aperture Ratio	1 : 1.3 (Wide) ~ 1 : 3.1 (Tele)	
	Focusing Range	0.3 m ~ ∞	
Adjusting Angle		Horizontal: 180° (clockwise), 170° (counterclockwise) / Vertical: ±75°, Imaging 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 (Auto / 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, Italian, French, German, Spanish, Russian, Chinese, 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	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	
Network	Network IF	10Base-T / 100Base-TX, RJ-45 connector	
	Image Resolution *1 *2 — 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: 1,280 × 960 / VGA (640 × 480) / QVGA (320 × 240), up to 30 fps	
	Aspect ratio: [16 : 9]	H.264: 1,280 × 720 / 640 × 360 / 320 × 180, up to 30 fps / JPEG: 1,280 × 720 / 640 × 360 / 320 × 180, up to 30 fps	
	H.264/ MPEG-4 *1 — 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 / 8,096* kbps / Unlimited * H.264 mode only	
	Image Quality	LOW / NORMAL / FINE	
	Refresh Interval	0.2 s / 0.25 s / 0.33 s / 0.5 s / 1 s / 2 s / 3 s / 4 s / 5 s	
	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	
	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, RTP, FTP, SMTP, DNS, NTP, SNMP, DHCPv6, ICMPv6 / IPv4: TCP/IP, UDP/IP, HTTP, RTSP, RTP, RTP/RTCP, FTP, SMTP, DHCP, DNS, DDNS, NTP, SNMP, UPnP, IGMP, ICMP, ARP	
	FTP Client	Alarm image transfer, Periodic image transfer, Active/Passive selectable (When the FTP periodic 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)	

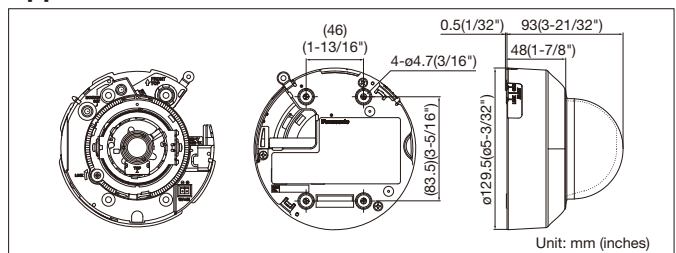| TV System		NTSC	PAL
Network	SDHC/SD Memory Card (Option)	H.264 recording: Manual REC / Alarm REC (Pre/Post) JPEG recording: Manual REC / Alarm REC (Post) / Backup upon network failure Compatible SD (SDHC) card: Panasonic 256 MB, 512 MB, 1 GB, 2 GB, 4 GB*, 8 GB*, 16 GB*, 32 GB* model * SDHC card	
	Cellular Phone Compatibility	JPEG image	
	Mobile Terminal Compatibility *3	iPad, iPhone, iPod touch (iOS 4.2.1 or later) , Android™ mobile terminals	
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)	1.0 V [p-p] / 75 Ω, NTSC composite, RCA Jack	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, ALARM OUT, AUX OUT	
General	Safety/EMC Standard	UL (UL60065), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60065), DOC (ICES003 ClassA)	CE (EN55022 ClassB, EN55024)
	Power Source and Power Consumption	12 V DC: 280 mA, PoE (IEEE 802.3af): 3.5 W (Class 2 device)	
	Ambient Operating Temperature/Humidity	−10 °C ~ +50 °C (14 °F ~ 122 °F), Less than 90 % (no condensation)	
	Dimensions	ø129.5 mm x 93 mm (H) {ø5-3/32 inches x 3-21/32 inches(H)}	
	Mass (approx.)	370 g (0.82 lbs.)	

*1 H.264 and MPEG-4 are alternative.
*2 [4 : 3] and [16 : 9] are alternative.
*3 For further information about compatible devices, refer to our website (http://security.panasonic.com/pss/security/support/info.html).

Part Names and Functions

① 3.6x Variable Focal Lens
② Monitor Out Connector for Adjustment
③ Panning Table Lock Screw
④ 12 V DC Power Cable Terminals
⑤ Focus Assist Button
⑥ SDHC/SD Memory Card Error Indicator / Focus Assist Indicator
⑦ Link Indicator
⑧ Access Indicator
⑨ SDHC/SD Memory Card Slot
⑩ INITIAL SET Button
⑪ Audio Output Connector
⑫ Microphone/Line Input Connector
⑬ Network Connector (RJ-45)
⑭ External I/O Terminals

* Due to space limitation, the connector of the audio cable and network cable should be within 30 mm (1-3/16") from the connector of the camera.

Appearance

(46) (1-13/16")
0.5(1/32") 93(3-21/32")
4-ø4.7(3/16")
48(1-7/8")
(83.5)(3-5/16")
ø129.5(ø5-3/32")

Unit: mm (inches)

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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.

• 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.