

DILOSEUR

AW-HE40SW/SK [SDI Model] AW-HE40HW/HK [HDMI Model]

HD Integrated Camera

AW-SFU01G Feature Upgrade

AW-HE40SW/AW-HE40HW Suspended (Hanging) style For indoor use

Features 30x optical zoom lens and support for PoE+* for outstanding operability and installation flexibility

> AW-HE40SK/AW-HE40HK Stand-alone (Desktop) style For indoor use

Panasonic



Full HD camera with integrated pan-tilt for lectures, meetings and a wide variety of applications.

The AW-HE40 series of integrated full HD cameras performs in a wide variety of onsite shooting applications that require high-quality video, such as conferences, lecture capture and other events, thanks to its high-performance zoom, wide angle of view and outstanding color reproducibility. In addition to IP video transmission, support for PoE^{+1} enables power to be supplied via a LAN cable. The result is installation flexibility. Adding the optional Feature Upgrade AW-SFU01G gives support for HD-IP video output, output of video and audio via USB, and SD card recording.

Newly Developed 1/2.3-type MOS Sensor

Equipped with a newly developed 1/2.3-type MOS sensor and DSP (Digital Signal Processor) for high sensitivity and high resolution.

High Performance Optical 30x Zoom Lens/ Super Resolution 40x Zoom

In addition to a 30x optical zoom, the AW-HE40 series can zoom up to 40x while maintaining high resolution thanks to Super Resolution technology. It also features a 16x digital zoom*2 and a 1.4x digital extender, which enables the AW-HE40 series to shoot in large conference halls and classrooms.



Wide side (31.6 mm)

Telephoto side (962 mm) * Images are simulated

Night Mode (supports automatic switching)

Switching to Night Mode makes shooting possible even in low light conditions in which shooting is normally difficult, such as when observing wildlife*3.



The AW-HE40 series can also be set to switch to the mode automatically depending on surrounding light levels.

* Images are simulated

Equipped with High Dynamic Range (HDR) Mode

In addition to conventional Dynamic Range Stretch (DRS) and Digital Noise Reduction (DNR), the AW-HE40 is newly equipped with High Dynamic Range (HDR) mode. When shooting and synthesizing two images with differing exposure times, the AW-HE40 series can create video with high visibility that corrects for halation and black defects even under backlit conditions.



Outputs Still Image During Preset Movements; Supports One-Camera Operations

The new Freeze During Preset function enableds to freeze the video during preset playback. The immediately preceding still image is output during preset movements so that the swiveling movement is not displayed, making operations possible with one camera.

With Freeze During Preset function OFF and ON



Either SDI Model or HDMI Model Can Be Selected To Match Usage Needs

Supports 1080/59.94p (HDMI model only), 29.97p*4, 59.94i, 29,97PsF, 1080/50p (HDMI model only), 25p*4, 50i, 25PsF, 720/59.94p, and 50p video formats. Flexible operation in line with the application is made possible by a lineup that includes an SDI output model (AW-HE40SW/SK), optimal for video content production, and an HDMI output model (AW-HE40HW/HK), optimal for video streaming, both of which come in two body colors (white and black) that can be selected depending on the usage environment.

Video/Audio Output with USB*5 AW-SFU01G

With the Feature Upgrade AW-SFU01G (optional), USB Video Class and USB Audio Class are supported. This enables video and audio output via USB so the cameras can be used as high-image-quality Web cameras for Web conferencing, distance learning, and other applications utilizing communication software.

Audio Input Function (AW-SFU01G)

The AW-HE40 series also supports audio input, embedding and encoding.

By adding AW-SFU01G, audio output to IP is also supported. The ALC (Audio Automatic Level Control) in the original AW-HE40 series can be switched ON/OFF and an equalizer function can be used. By reducing low-frequency sound from air conditioners, projectors, and other devices, it is possible to emphasize and increase the clarity of the spoken words*5.

*1: Abbreviation of Power over Ethernet Plus. *2: Picture quality is lower with the digital zoom. *3: Video output is monochrome. *4: Native output. *5: When the optional AW-SEU01G is used.

microSD Card Recording Function*1 AW-SFU01G

With the AW-SFU01G (optional), microSD card recording is supported. Camera video and audio can be recorded in MP4 format on microSD card (sold separately) inserted into the unit. In addition, using an IP network, it is possible to externally control recording start/stop and download the recorded files.



Full HD Video Output Via IP Transmission*1 AW-SFU01G

In addition to HD-SDI and HDMI output, production quality full HD video output via IP transmission is supported with the AW-SFU01G. The camera delivers up to four channels of IP streaming video (H.264), with a maximum quality level of 1080/60p at 24 Mbps*². Simultaneous transmission to as many as 14 devices is also supported*³. Flexible system setup is possible to meet various application needs.



Transmit IP Video Without a Separate Encoder Reduces Cost and Simplifies Installation^{*1}

There is no need for the separate encoder normally required when streaming video and audio via IP. Systems can be built with exceptional cost/performance benefits.

Supporting PoE+*7 for Lower Installation Costs

By connecting network devices that support the IEEE802.3at PoE+ standard, power can be supplied via LAN cable. Since it is not necessary to install a power supply or even a local AC outlet, installation costs can be significantly reduced.

IP Control with Image Monitoring Using PC, Mac and Mobile Terminals AW-SFU01G

Using an IP browser, the camera can be controlled from a remote location, and IP video monitoring and remote camera control can be performed from a PC, Mac or mobile terminal such as an iPhone, iPad or Android device, enabling easy operations. IP video^{*8} can be transmitted to up to five terminals^{*2} per camera, or transmitted to up to 14 terminals^{*1+2} with the addition of AW-SFU01G.

*For the latest information on supported OS/browsers, please refer to the "service and support" section on the Panasonic website (http://pro-av.panasonic.net/en/).

Flexible IP Control Architecture Simplifies System Design and Operation*⁹

Up to 100 x AW-HE40 series cameras can be controlled via IP from a single AW-RP120G/RP50 or PC. An AW-HE40 series can also be simultaneously controlled by up to five AW-RP120G/RP50's via IP.

List of Supported Multi-Streaming Outputs (When IP output priority is selected*)

Settings			JPEG			
		CH1	CH2*4	CH3*4/CH4*5	CH1/CH2/CH3	
Resolution		1920×1080/ 1280×720*4/ 640×360* ⁶	1280×720/ 640×360/ 320×180	1280×720/ 640×360/ 320×180	1920×1080*5/ 1280×720*4/ 640×360/ 320×180*4	
Frame rate	59.94 Hz	5 fps/ 15 fps/ 30 fps/ 60 fps	5 fps/15 fps/30 fps	5 fps/15 fps/30 fps	5 fps/15 fps/30 fps	
	50 Hz	5 fps/ 12.5 fps/ 25 fps/ 50 fps	5 fps/12.5 fps/25 fps	5 fps/12.5 fps/25 fps	5 fps/12.5 fps/25 fps	
Bit rate		Up to 24 Mbps				
Voice transmission		Yes (AAC48 kHz)				
PoE+		Yes				

*Depending on the output mode, certain restrictions apply.





*1: When the optional AW-SFU01G is used. *2: 1920 x 1080 60 fps output is 1ch display only. For 2ch or more, display is max. 30 fps. Also, JPEG output is up to 3ch. *3: Depends on your network environment. *4: Settable when HDR is "Off". *5: Settable when HDR is set to "Off" and the frame rate is other than 60fps (or 50fps). *6: Not settable when HDR is "Off". *7: Abbreviation of Power over Ethernet Plus. *8: Supports only SD video output. *9: Controller upgrade required. For details, please refer to the "service and support" section on the Panasonic website (http://pro-av.panasonic.net).

Exceptional Pan-tilt Performance for Smooth Shooting Over a Wide Area*1

The pan range of $\pm 175^{\circ}$ and the tilt range of -30° to $+90^{\circ}$ cover a wide shooting area^{*1}. Pan and tilt operate at a maximum speed of 90°/second and respond quickly to remote control operation. They operate quietly at a sound level of NC35 or lower.



*1. Depending on the position of the pan and tilt, the unit itself may be reflected in the image.

Other Functions

Preset memory up to 100 positions.

- Functions such as freeze during preset, digital extender zoom and color temperature settings can be assigned to the user buttons on Panasonic controllers.
- Equipped with RS422 remote terminal; up to five units can be controlled via serial control from a controller.
- Equipped with RS232C remote terminal (standard serial communication support). Up to seven units can be controlled via daisy chain connection.
- Up to four units can be operated with a wireless remote controller (AW-RM50G sold separately).
- Easy installation thanks to use of turn-lock mechanism.



Optional Software That Adds Extra Functionality to The AW-HE40 Series



Easy Wireless Control Using an iPad with a Control Assist Camera*3.



Approx. 30°

Control Assist Camera AW-HEA10W



Control Assist Camera

- Used in combination with an HD Integrated Camera*³.
- 95° wide-angle view from the Control Assist Camera is displayed on an iPad.
- Tapping the desired area of the wide-angle view displayed on the iPad*² turns the field of view of the HD Integrated Camera*³ to the tapped position.
- HD Integrated Camera^{*3} pan, tilt, and zoom can be easily controlled from an iPad.
- Up to 9 preset positions can be registered.
 - * 2: An iPad (sold separately) and a wireless AP (sold separately) are required. Please install the iPad application "PTZ Chtrl" (free). For details, please visit Panasonic AW-HEA10W/K website (http://pro-av.panasonic.net/en/sales_o/camera/aw-hea10/).
 - * 3: AW-HE130W/K, AW-HE40 series, and AW-HE60 series only. When used with the AW-HE60 series, in some cases an AW-HE60 series software upgrade will be necessary.

 Image of lens movement
 Image example
 iPad

 This is adjustable 30° vertically, and 45° horizontally.
 HD Integrated Camera
 Image example
 iPad

 HD Integrated Camera
 HD Integrated Camera
 Image example
 Image example
 Image example
 Image example

 Approx. 45°
 Approx. 45°
 Control Assist Camera
 Image example
 iPad
 Image example
 Image example

Images simulated

Specifications

<u></u>										As of July, 201
Power requirements		DC 12 V (Supplied AC adaptor) DC 42 V to 57 V (PoE+ power supply)			Chroma amoun	t variability	±3 step			
GENERAL			1.2 A (Supplied AC adaptor)		-	Scene file		Full Auto, N	Manual1, Manual2, Manual3	
	Current consumption		0.4 A (PoE+ power supply)						1080:59.94p/50p* ⁴ 1080:59.94i/50i	
	Ambient operating temperature					Output format		HD	1080:29.97p/25p	
	Storage temperature			0 °C (-4 °F to 122 °F)		_				1080:29.97PsF/25PsF 720:59.94p/50p
				90 % (no condensation)	-	Synchronizatio	n system	Internal syr	nchronization	
	Mass		Approx. 1.5	2 · · · ·		-	[USB conned	ction] *	This may vary	y depending on the operating environment.
	Dimensions (W x H x D)		160 mm x 186 mm x 166 mm (6-5/16 inches x 7-41/128 inches x 6-17/32 inches)		-	Video output		USB Video	Class Ver1.0 ^{*5}	
			[excluding protrusions, direct ceiling mount bracket]	Video compress		sion format	Motion JPE	G		
	Finish Controller supported*1				E40HWE], [AW-HE40SWE] Pearl white 40HKE], [AW-HE40SKE] Metallic black	-	Resolution			30, 1280 x 720, 640 x 360
				AW-RP120, AK-HRP200	onkej, priv-netoskej wetanie olačk	-	Frame rate			; (System frequency 59.94 Hz) ; (System frequency 50 Hz)
	Power			PoE+ (IEEE802.3at stand	lard)	-	Audio output			Class Ver1.0 ^{*5}
-				-jack (ø3.5 mm)		-	Audio compress	sion format		1, 48 kHz, 16-bit, 2 channels
			Input impedance: Approx. 2 kΩ (unbalanced) [Mic input] Supported microphones: Stereo mic (plug-in power, on/off switching via menu) Supplied voltage: 2.5 V \pm 0.5 V Mic input level: -60 dBV \pm 3 dBV		-	Supported mod			andardly equipped with a USB 2.0 compatible port	
INPUT					-	[Pan-tilt he			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
	Mic/line inp	ut				Installation me	thod	Stand-alon	e (Desktop) or suspended (Hanging) ^{*6}	
					-	Pan/tilt operati	on speed	Maximum s	speed during preset: 300°/s	
			[Line input] Input level: -10 dBV ± 3 dBV				on speed		speed during manual: 90°/s	
				HDMI connector		-	Panning range		±175°	-7
OUTPUT	Video output	HDMI		not supported. * VIERA Li	ink is not supported.		Tilting range		-30° to 90°	
	σατρατ	HD SDI OUT	[AW-HE40S] Compliant with the SM	IPTE292M standards/75 Ω(BNC x 1)		Quietness			set: NC40 or less nual: NC35 or less
		LAN		ctor for IP control (RJ-45		FUNCTIONS	[Camera/par	n-tilt head	-	
		RS-232C		pin (IN) Mini DIN 8-pin (ble auto detection function	AND PERFORMANCE				ecting through a hub:
INPUT/ OUTPUT	Input/ Output	RS-422		N RS422A (RJ-45)			IP connecting cable		LAN cable*8(category 5 or above),max. 100 m (328 ft) When using a PoE+ hub:	
001101	connector	USB	Mini-B port			•			LAN cable*1	⁸ (category 5e or above),max. 100 m (328 ft)
	SD card		microSD card slot						b is not used: ⁸ (category 5 or above),max. 100 m (328 ft)	
	[Camera unit]					-	AW protocol con	AW protocol connecting cable		⁸ (category 5 or above,straight cable), max. 1000 m (3280 ft)
	Imaging sensors		1/2.3-type	MOS		-	Standard proto	col		-pin cable, male
			Motorized 30x zoom, F1.6 to F4.7		1.	connecting cab		WITH DIN 6-	-pin cable, male	
	Lens		[f=4.3 mm (11/64 inches) to 129 mm(5-5/64 inches); 35 mm (1-3/8 inches) equivalent: 31.6 mm (1-31/128 inches)to 962.0 mm (37-7/8 inches)]			[SD card rec	ording]*5			
-				31.6 mm (1-31/128 inche		-				
	Focus				es)to 962.0 mm (37-7/8 inches)]	-	SD card type			C (4 GB to 32 GB), micro SDXC (64 GB to 128 GB), s 10 or higher
-			Switching b Entire zoom	etween auto and manual ning range:1.2 m (3.94 ft)	es)to 962.0 mm (37-7/8 inches)] I	-		icy	Speed class	s 10 or higher
	Focus distar		Switching b Entire zoom	etween auto and manual	es)to 962.0 mm (37-7/8 inches)] I	-	SD card type System frequen Video compress		Speed class 59.94 Hz/5	s 10 or higher
-	Focus distar Color separa	tion	Switching b Entire zoom Wide end: 1	etween auto and manual ning range:1.2 m (3.94 ft)	es)to 962.0 mm (37-7/8 inches)] I	- - - -	System frequen	sion format	Speed class 59.94 Hz/5 MPEG-4 AV	s 10 or higher 0 Hz
	Focus distar	tion m	Switching b Entire zoom Wide end: 1 On-chip col	between auto and manual hing range:1.2 m (3.94 ft) 10 cm (0.33 ft) lor filter system	es]to 962.0 mm (37-7/8 inches)] 		System frequen Video compress	sion format sion format	Speed class 59.94 Hz/50 MPEG-4 AV AAC-LC (48	s 10 or higher 10 Hz JC/H.264 High Profile
	Focus distar Color separa optical syste Minimum	tion	Switching b Entire zoom Wide end: 1 On-chip col 0.7 lx (50 IF	vetween auto and manual ning range:1.2 m (3.94 ft) O cm (0.33 ft) Ior filter system RE, F1.6, 48 dB,1/60 witho	es]to 962.0 mm (37-7/8 inches)] 		System frequen Video compress Audio compress SD card recordi	sion format sion format ng	Speed class 59.94 Hz/50 MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 x 108	s 10 or higher 10 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) //C file standard compliant (.MP4) 10/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p,
FUNCTIONS	Focus distar Color separa optical syste	tion m	Switching b Entire zoom Wide end: 1 On-chip col 0.7 lx (50 IF 0.35 lx (50 0.7 lx (50 IF	etween auto and manual ning range:1.2 m (3.94 ft) 10 cm (0.33 ft) lor filter system RE, F1.6, 48 dB,1/60 withd RE, F1.6, 48 dB,1/30 withd RE, F1.6, 48 dB,1/50 withd	es)to 962.0 mm (37-7/8 inches)] I put accumulation) h accumulation[Frame Mix 6 dB]) put accumulation]		System frequen Video compress Audio compress	sion format sion format ng	Speed class 59.94 Hz/50 MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 x 108 1920 x 108	s 10 or higher 0 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) /C file standard compliant (.MP4) io/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p, 10/55p, 1280 x 720/50,94, 1280 x 720/50p,
AND	Focus distar Color separa optical syste Minimum illumination	tion m 59.94 Hz 50 Hz	Switching b Entire zoom Wide end: 1 On-chip col 0.7 lx (50 IF 0.35 lx (50 0.7 lx (50 IF 0.35 lx (50	vetween auto and manual hing range:1.2 m (3.94 ft) 10 cm (0.33 ft) lor filter system RE, F1.6, 48 dB,1/60 withto RE, F1.6, 48 dB,1/50 withto RE, F1.6, 48 dB,1/50 withto RE, F1.6, 48 dB,1/50 withto RE, F1.6, 48 dB,1/50 withto	es)to 962.0 mm (37-7/8 inches)] nut accumulation) n accumulation[Frame Mix 6 dB]]		System frequen Video compress Audio compress SD card recordi	sion format sion format ng	Speed class 59.94 Hz/50 MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 x 108 1920 x 108	s 10 or higher 10 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) //C file standard compliant (.MP4) 10/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p,
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AND	Focus distar Color separa optical syste Minimum illumination Horizontal r Gain selectio	59.94 Hz 50 Hz esolution	Switching b Entire zoom Wide end: 1 On-chip col 0.7 lx (50 lF 0.35 lx (50 0.7 lx (50 lF 0.35 lx (50 1000 TV lin Auto, 0 dB 1 Auto, 0 dB 1 During Full Auto	retween auto and manual inig range:1.2 m (3.94 ft) 10 cm (0.33 ft) ior filter system RE, F1.6, 48 dB,1/50 with RE, F1.6, 48 dB,1/50 with RE, F1.6, 48 dB,1/25 with cm, 48 dB (3 dB step) idB, 12 dB, 18 dB, 24 dB 1/30 to 1/2000 [59 Hz] 1/60 to 1/2000 [59 Hz] 1/6	es)to 962.0 mm (37-7/8 inches)] I Dut accumulation) h accumulation[Frame Mix 6 dB]] but accumulation[Frame Mix 6 dB]] Hz]		System frequen Video compress Audio compress SD card recordi Recording form [Network] Resolution	sion format ng at JPEG	Speed class 59.94 Hz/5/ MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 x 108 1920 x 108	s 10 or higher 10 Hz IC/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) /C file standard compliant (.MP4) 10/55,9.4p, 1320 x 1080/50p, 1320 x 1080/29.97p, 10/25p, 1280 x 720/59.94p, 1280 x 720/50p, /29.97p, 1280 x 720/25p 360), 0VGA (320 x 180) max.30 fps 10 ⁴⁵ , 1280 x 720 ⁴⁵ , 640 x 360 ⁴⁵ , 320 x 180 ⁴⁵ max.30 fps 10, 1280 x 720, 640 x 360, 320 x 180 max.60 fps
AND	Focus distar Color separa optical syste Minimum illumination Horizontal r Gain selectio	tion m 59.94 Hz 50 Hz esolution pn* ²	Switching b Entire zoom Wide end: 1 On-chip col 0.7 lx (50 lF 0.35 lx (50 0.07 lx (50 lF 0.35 lx (50 1000 TV lin Auto, 0 dB t Auto, 0 ff, 6 During	retween auto and manual inig range:1.2 m (3.94 ft) 10 cm (0.33 ft) ior filter system RE, F1.6, 48 dB,1/50 with RE, F1.6, 48 dB,1/50 with RE, F1.6, 48 dB,1/25 with cm, 48 dB (3 dB step) idB, 12 dB, 18 dB, 24 dB 1/30 to 1/2000 [59 Hz] 1/60 to 1/2000 [59 Hz] 1/6	esito 962.0 mm (37-7/8 inches)]		System frequen Video compress SD card recordi Recording form [Network] Resolution	sion format sion format ng at JPEG H.264* ⁵ IPv4	Speed class 59.94 Hz/5/ MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 x 108 1920 x	s 10 or higher 0 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) /C file standard compliant (.MP4) io/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p, io/259, 1280 x 720/594p, 1280 x 720/50p, //29.97p, 1280 x 720/25p x 360), QVGA (320 x 180) max.30 fps io*5, 1280 x 720*5, 640 x 360*5, 320 x 180 max.60 fps /IP, HTTP, HTTPS*G, RTP*5, RTP*5, RTP*6, RTSP*Greet, STP*5, NTP*5, ISIM*5, UPAP*5, ICM*5, ARP, RTSPoverTCP*5, TTP*5, SSL(TLS)*5, MultiCast/UniCast*5
AND	Focus distar Color separa optical syste Minimum illumination Horizontal r Gain selecti Frame mix* ⁵	tion m 59.94 Hz 50 Hz esolution pn* ²	Switching b Entire zoom Wide end: 1 On-chip col 0.7 lx (50 lF 0.35 lx (50 0.7 lx (50 lF 0.35 lx (50 1000 TV lin Auto, 0 dB t Auto, 0 dB t Auto, 0 dB t Auto, 0 dB t Auto, 0 dB t	retween auto and manual ing range:1.2 m (3.94 ft) 10 cm (0.33 ft) Ior filter system RE, F1.6, 48 dB,1/60 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with Constraints of the system typ (Center area) 1/30 to 1/2000 [59.94 1/30 to 1/2000 [59.94 1/50 to 1/2000 [50 Hz] 1/100, 1/2500, 1/500, 1/	es)to 962.0 mm (37-7/8 inches)] U Dout accumulation) n accumulation[Frame Mix 6 dB]) Dut accumulation[Frame Mix 6 dB]) Hz Hz] Hz] Hz] /1000, 1/2000,		System frequen Video compress Audio compress SD card recordi Recording form [Network] Resolution Supported protocol	sion format sion format ng at JPEG H.264* ⁵ IPv4 IPv6* ⁵	Speed class 59.94 Hz/50 MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 x 108 1920 x 108 1280 x 720 VGA (640 x 1920 x 108 1920 x 108 1920 x 108 1920 x 108 TCP/IP, UDP DHCP, DNS, RTSPoverHi TCP/IP, UDP NTP, ICMPVE	s 10 or higher 0 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) /C file standard compliant (.MP4) i0/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p, 10/25p, 1280 x 720/59.94p, 1280 x 720/50p, //29.97p, 1280 x 720/25p x 360), QVGA (320 x 180) max.30 fps ot ⁵ , 1280 x 720 ⁵ , 640 x 360 ⁵ , 320 x 180 ⁺⁵ max.30 fps i0, 1280 x 720, 640 x 360, 320 x 180 ⁺⁵ max.30 fps i0, 1280 x 720, 640 x 360, 320 x 180 ⁺⁵ max.30 fps i0, 1280 x 720, 640 x 360, 320 x 180 ⁺⁵ max.30 fps i0, 1280 x 520, 640 x 360, 320 x 180 ⁺⁵ max.30 fps i0, 1280 x 720, 640 x 360, 320 x 180 ⁺⁵ max.30 fps i0, 1280 x 720, 640 x 360, 320 x 180 ⁻⁵ max.60 fps /i/P, HTTP, HTS ⁻ , RTS ⁻ , RTP-RP, RTS ⁻ , FTP ⁻⁵ , 51(TLS ⁻⁵ , MultiCast/UniCast ⁻⁵ i/P, HTTP, HTTP, RTS ⁻ , RTS ⁻ , RTP, RTP, RTO, PTO, PHO, PMS, DNS, 6(MLD), RTSPoverICP, RTSPoverICP, RTSPoverICP, SL(TLS), MultiCast/UniCast
AND	Focus distar Color separa optical syste Minimum illumination Horizontal r Gain selecti Frame mix* ⁵	tion m 59.94 Hz 50 Hz esolution pn* ²	Switching b Entire zoom Wide end: 1 On-chip col 0.7 lx (50 lF 0.35 lx (50 0.7 lx (50 lF 0.35 lx (50 1000 TV lin Auto, 0 dB 1 Auto, 0 dB 1 During Full Auto	retween auto and manual ining range:1.2 m (3.94 ft) 10 cm (0.33 ft) lor filter system RE, F1.6, 48 dB,1/60 withou RE, F1.6, 48 dB,1/30 withou RE, F1.6, 48 dB,1/30 without RE, F1.6, 48 dB,1/25 with es Typ (Center area) to 48 dB (3 dB step) 1/30 to 1/2000 [59.94 1/30 to 1/2000 [59.94 1/50 to 1/2000 [59.94 1/50 to 1/2000 [59.94] 1/50 to 1/2000 [59.94]	esjto 962.0 mm (37-7/8 inches)]		System frequen Video compress Audio compress SD card recordi Recording form [Network] Resolution Supported protocol i-OS, Android s	sion format sion format ng at JPEG H.264* ⁵ IPv4 IPv6* ⁵ upport	Speed class 59.94 Hz/5 MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 × 108 1280 × 720 VGA (640 × 1920 × 108 1920 × 108 1920 × 108 1920 × 108 TOP/IP, UDP DHCP, DNS, RTSPoverH TCP/IP, UDP JPEG image	s 10 or higher 0 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) /C file standard compliant (.MP4) 0(059.94p, 1200 x 1080/50p, 1920 x 1080/29.97p, 10/25p, 1280 x 720/59.94p, 1280 x 720/50p, //29.97p, 1280 x 720/59.94p, 1280 x 720/50p, //29.97p, 1280 x 720/59, 640 x 360 ⁻⁶ , 320 x 180 ⁻⁶ max.30 fps 10, 1280 x 720, 640 x 360 ⁻⁶ , 320 x 180 ⁻⁶ max.30 fps 10, 1280 x 720, 640 x 360, 320 x 180 max.60 fps -/IP, HTTP, HTTP5 ⁻⁵ , RTSP ⁺⁵ , RTP ⁺⁵ , RTP ⁺⁷⁵ , RTP ⁺⁷⁵ , SIGN ⁺⁵ , SIGN ⁺⁵ , SIGN ⁺⁵ , SIGP ⁺⁵ , S
AND	Focus distar Color separa optical syste Minimum illumination Horizontal r Gain selecti Frame mix* ⁵	tion m 59.94 Hz 50 Hz esolution pn* ²	Switching b Entire zoom Wide end: 1 On-chip col 0.7 lx (50 lF 0.35 lx (50 0.35 lx (50 0.35 lx (50 0.35 lx (50 0.35 lx (50 1000 TV lin Auto, 0 dB t Auto, 0 dB t Auto, 0 dB t During Full Auto During Auto During Manual	Petween auto and manual ing range:1.2 m (3.94 ft) 10 cm (0.33 ft) Ior filter system RE, F1.6, 48 dB,1/60 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with Context and the system of the system (3.84 step) dB, 12 dB, 18 dB, 24 dB 1/30 to 1/2000 [59.94] 1/50 to 1/2000 [50 Hz] 1/100, 1/2000 [50 Hz] 1/1000 [es)to 962.0 mm (37-7/8 inches)] ut accumulation) h accumulation[Frame Mix 6 dB]) ut accumulation[Frame Mix 6 dB]) Hz Hz Hz 1000, 1/2000, 4 Hz] 1000, 1/2000,		System frequen Video compress Audio compress SD card recordi Recording form [Network] Resolution Supported protocol i-OS, Android s	ion format ion format ng at JPEG H.264*5 IPv4 IPv6*5 upport for installati	Speed class 59.94 Hz/5 MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 × 108 1920 ×	s 10 or higher 0 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) /C file standard compliant (.MP4) 10/55.94p, 1920 x 1080/50p, 1920 x 1080/29.97p, 10/25p, 1280 x 720/59.94p, 1280 x 720/50p, /29.97p, 1280 x 720/59, 94p, 1280 x 720/50p, /29.97p, 1280 x 720/54, 940 x 360 ⁻⁵ , 320 x 180 ⁻⁵ max.30 fps 10, 1280 x 720 ⁻⁶ , 640 x 360 ⁻⁵ , 320 x 180 ⁻⁵ max.30 fps 10, 1280 x 720, 640 x 360, 320 x 180 max.60 fps /IP, HTTP, HTTPS ⁻⁵ , RTSP ⁻⁵ , RTP ⁻⁵ , RTP/RTCP ⁻⁵ , FTP ⁻⁵ , NTP ⁻⁵ , IGMP ⁻⁵ , UMC ⁻⁵ , ATRP ⁻⁵ , RTP, RTSPoverTCP ⁻⁵ , TTP ⁻⁵ , SSL(TLS ⁻⁵ , MultiCast/JUniCast ⁻⁵ 20/P, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCPv6, DNS, 6(MLD), RTSPoverTCP, RTSP, RTP, SL(TLS), MultiCast/JuniCast e display
AND	Focus distar Color separa optical syste Minimum illumination Horizontal r Gain selecti Frame mix* ⁵	tion 59.94 Hz 50 Hz esolution n* ²	Switching b Entire zoom Wide end: 1 On-chip col 0.7 tx (50 H 0.35 tx (50 0.35	retween auto and manual ining range:1.2 m (3.94 ft) 10 cm (0.33 ft) Ior filter system RE, F1.6, 48 dB,1/60 withh IRE, F1.6, 48 dB,1/25 with E, F1.6, 48 dB,1/25 with E, F1.6, 48 dB,1/25 with es Typ (Center area) to 48 dB (3 dB step) ida, 12 dB, 18 dB, 24 dB 1/30 to 1/2000 [59.94 1/30 to 1/2000 [59.94 1/30 to 1/2000 [59.94 1/30 to 1/2000 [59.94 1/100, 1/250, 1/500, 1/ 1/4000, 1/10000 [50.94 1/100, 1/250, 1/500, 1/ 1/4000, 1/10000 [50.94 1/4000, 1/10000 [50.94]	es)to 962.0 mm (37-7/8 inches)] ut accumulation) h accumulation[Frame Mix 6 dB]) ut accumulation[Frame Mix 6 dB]) Hz Hz Hz 1000, 1/2000, 4 Hz] 1000, 1/2000,		System frequen Video compress Audio compress SD card recordin Recording form [Network] Resolution Supported protocol i-OS, Android s Mount bracket Drop-preventio Bracket mount	sion format sion format ng at JPEG H.264* ⁵ IPv4 IPv6* ⁵ upport for installati n wire (alrea ng screws (b	Speed class 59.94 Hz/5 MPEG-4 AV AAC-LC 44 MPEG-4 AV 1920 × 108 1920 × 108 1020 × 1	s 10 or higher 0 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) /C file standard compliant (.MP4) 10/55.94p, 1320 x 1080/S0p, 1920 x 1080/29.97p, 10/25p, 1280 x 720/59.94p, 1280 x 720/50p, /29.97p, 1280 x 720/59, 640 x 360°, 320 x 180 max.60 fps 0, 1280 x 720°, 640 x 360°, 320 x 180 max.60 fps /IP, HTTP, HTTP5*5, RTSP*5, RTP*5, RTP/RTCP*5, FTP*5 /IP, HTTP, HTTP5*, ICMP*5, ICMP*5, ICMP*6, RTSP0verTCP*5, ITT*5, SSL(TLS)*5, MultiCast/SUICast*5 //P, HTTP, HTTP5, RTSP, RTP, RTP/RTCP, FTP, DHCPv6, DNS, 6(MLD), RTSP0verTCP, RTSP0verHTP, SSL(TLS), MultiCast/UniCast display langing*9 / Desktop): 1 to the unit): 1 4 x 10 mm: 4
AND	Focus distar Color separa optical syste Minimum illumination Horizontal r Gain selecti Frame mix* ² Electronic sl	tion 59.94 Hz 50 Hz esolution n*2	Switching b Entire zoom Wide end: 1 On-chip col 0.7 tx (50 IF 0.35 tx (50 1000 TV lin Auto, 0 dB 1 Auto, 0 dB 1 Auto, 0 dB 1 Auto, 0 dB 1 During Auto, 0 dB 1 During Auto During Manual 59.94 Hz : 1 50 Hz : 50.1	Petween auto and manual ing range:1.2 m (3.94 ft) 10 cm (0.33 ft) Ior filter system RE, F1.6, 48 dB,1/60 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with RE, F1.6, 48 dB,1/30 with Context and the system of the system (3.84 step) dB, 12 dB, 18 dB, 24 dB 1/30 to 1/2000 [59.94] 1/50 to 1/2000 [50 Hz] 1/100, 1/2000 [50 Hz] 1/1000 [es)to 962.0 mm (37-7/8 inches)] ut accumulation) h accumulation[Frame Mix 6 dB]) ut accumulation[Frame Mix 6 dB]) Hz] Hz] Hz] Hz] Hz] I000, 1/2000, Hz] I000, 1/2000, Hz]	ACCESSORIES	System frequen Video compress Audio compress SD card recordin Recording form [Network] Resolution Supported protocol i-OS, Android s Mount bracket Drop-preventio Bracket mount	ion format ion format ng at JPEG H.264 ⁺⁵ IPv4 IPv6 ⁺⁵ upport for installati ny ic (alrea ng screws (b ting screw (b	Speed class 59.94 Hz/5 MPEG-4 AV AAC-LC (48 MPEG-4 AV 1920 × 108 1920 ×	s 10 or higher 0 Hz /C/H.264 High Profile 3 kHz, 16 bit, 2 ch, 128 kbps) /C file standard compliant (.MP4) i0/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p, 10/25p, 1280 x 720/59.94p, 1280 x 720/50p, //29.97p, 1280 x 720/25p sta60), 0VGA (320 x 180) max.30 fps ot ⁵ , 1280 x 720 ⁵ , 640 x 360 ⁵ , 320 x 180 ⁺⁵ max.30 fps i0, 1280 x 720, 640 x 360, 320 x 180 max.60 fps //P, HTTP, HTS ⁵ , RTP ⁻⁵ , RTP ⁻⁵ , RTP ⁻⁵ , RTP ⁻⁵⁵ , ITP ⁻⁵⁵ , .NTP ⁺⁵ , IGMP ⁺⁵ , UPAP ⁺⁵ , RTP ⁻⁵ , RTP ⁻⁵⁵ , RTP ⁻⁵⁵ , .NTP ⁺⁵ , IGMP ⁺⁵ , ICMP ⁺⁵ , ARP, RTSPoverTCP ⁺⁵ , ITP ⁺⁵ , SSL(TLS) ⁺⁵ , MultiCast/UniCast ⁻⁵ 0/P, HTTP, HTTP, RTSP, RTS, RTP, RTP, RTP, RD, PCPv6, DNS, 6(MLD), RTSPoverTCP, RTSPoverHTP, SSL(TLS), MultiCast/UniCast display langing ⁺³ / Desktop): 1 to the unit): 1

*1: It may be necessary to upgrade the version of the controller so that the controller will support the unit. *2: During Auto, 6 dB to 48 dB (6 dB step) are available for AGC Max Gain setting. *3: During Auto, 0 dB, 6 dB, 12 dB and 18 dB are available for Auto F.Mix Max Gain setting. *4: AW-HE40H only *5: When the network function expansion software AW-SFU01G (optional) is used. *6: To ensure safety, the unit must be secured using the mount bracket supplied. *7: Depending on the pan or till position, the camera may be reflected in the image. *8: Use of an STP (shielded twisted pair) cable is recommended. *9: To ensure more safety, AW-HE40S/H can be secured by using the direct ceiling mount bracket (WV-Q105A).

Required personal computer environment

As of July, 2015

CPU	When using 1080/60p [59.94 Hz] and 1080/50p [50 Hz] Intel® CoreTM i7 3.4 GHz or higher recommended Other than above Intel® CoreTM2 Duo 2.4 GHz or higher recommended				
Memory	For Windows	1 GB or higher (2 GB or higher for Microsoft® Windows® 8.1, Microsoft® Windows® 8, Microsoft® Windows® 7 64-bit edition)			
Wentory	For Mac	2 GB or more			
Network function	10BASE-T or 100BASE-TX p	iort x 1			
Image display function	Resolution: 1024 x 768 pixe	els or more Color generation: True Color 24-bit or more			
Supported operating system and Web browser	Windows	Microsoft® Windows® 8.1 Pro 64-bit/32-bit ^{*10} Windows® Internet Explorer® 11.0 ^{*10} Microsoft® Windows® 8 Pro 64-bit/32-bit ^{*10} Windows® Internet Explorer® 10.0 ^{*10} Microsoft® Windows® 7 Professional SP1 64-bit/32-bit ^{*11} Windows® Internet Explorer® 8.0 / 9.0 / 10.0 / 11.0 ^{*12}			
	Mac	OS X 10.8 Safari 6.2 / OS X 10.9 Safari 7.1 / OS X 10.10 Safari 8.0			
	iPhone / iPad / iPod touch	iOS 8.3 Standard browser			
	Android	Android OS 4.4 Standard browser			
Other	CD-ROM drive (for using the Operating Instructions and various software) Adobe® Reader® (for viewing the Operating Instructions on the CD-ROM)				

* 10: Use the desktop version of Internet Explorer. (Internet Explorer for Windows UI is not supported.) * 11: Windows® XP compatibility mode is not supported. * 12: The 64-bit version of Internet Explorer® is not supported.

For the latest information on supported OS/brower, please refer to the "service and support" on the Panasonic website (http://pro-av.panasonic/en/).

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System Camera Options



Please refer to the latest information, etc. at the following Panasonic web site:

http://pro-av.panasonic.net/

Panasonic

Panasonic Corporation AVC Networks Company 2-15 Matsuba-cho, Kadoma, Osaka 571-8503 Japan

http://pro-av.panasonic.net/

[Countries	and	Regions]
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Argentina Australia Bahrain Brazil Canada China Hong Kong Czech Republic: Denmark Egypt Finland, Latvia, Li	
	+358 (9) 521 52 53
France	+33 (0) 1 47 91 64 00
Germany, Austria	
donnany, / dona	+49 (0) 6103 313887
Greece	+30 210 96 92 300
Hungary	+36 (1) 382 60 60
ndia	+91 1860 425 1860
ndonesia	+65 6277 7284
ran	
(Vida)	+98 21 2271463
Panasonic Office)	+98 2188791102
tav	+39 02 6788 367
Jordan	+962 6 5859801
Kazakhstan	+7 727 298 0891
Korea	+82 2 2106 6641
Kuwait	+96 522431385
- correction	100 022 10 1000

Lebanon	+96 11665557
Malaysia	+60 3 7809 7888
Mexico	+52 55 5488 1000
Mongolia	+976 70115577
Netherlands, Be	gium
	+31 73 640 2729
New Zealand	+64 9 272 0100
Norway	+47 67 91 78 00
Pakistan	+92 5370320 (SNT)
Palestine	+972 2 2988750
Panama	+507 229 2955
Philippines	+65 6277 7284
Poland	+48 (22) 338 1100
Portuga	+351 21 425 77 04
	a, Bulgaria, Macedonia
,	+40 (0) 729 164 387
Russia & CIS	+7 495 9804206
Saudi Arabia	+96 626444072
Singapore	+65 6277 7284
Slovak Republic	Croatia, Serbia.
Bosnia, Montene	
	+421 (0) 903 447 757
South Africa	+27 11 3131622
Spain	+34 (93) 425 93 00
Sweden	+46 (8) 680 26 41
Svria	+963 11 2318422/4

+886 2 2227 6214

Taiwan

Thailand Turkey	+662 731 8888 +90 216 578 3700	
U.A.E. (for All Middle East)		
	+971 4 8862142	
Ukraine	+380 44 4903437	
U.K.	+44(0)1344 70 69 13	
U.S.A.	+1 877 803 8492	

+65 6277 7284

Vietnam





Factories of AVC Networks Company have received ISO14001:2004-the Environmental Management Sy certification. (Except for 3rd party's peripherals.) nt System