

Panasonic

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

HD Integrated Camera

For indoor use

AW-HE40SW/AW-HE40HW
Suspended (Hanging) style



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

AW-HE40SK/AW-HE40HK
Stand-alone (Desktop) style



*Abbreviation of Power over Ethernet Plus.



Full HD camera with integrated pan-tilt for lectures, weddings 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.

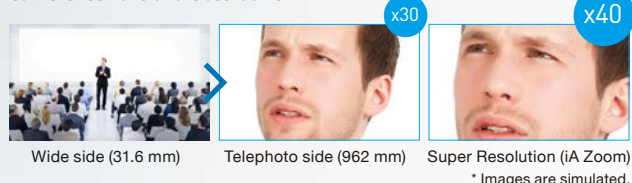
The AW-HE40 series also offers the flexibility of not requiring any specific installation location thanks to IP transmission and support for PoE+*1, which allows power to be supplied via a LAN cable.

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.



Night Mode (supports automatic switching)

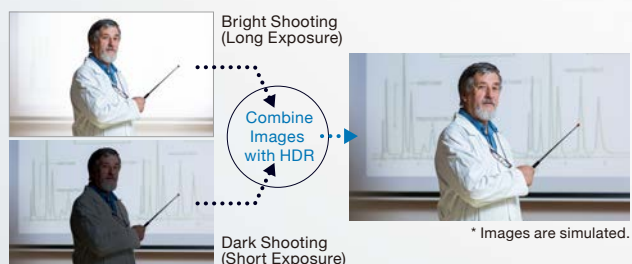
Switching to Night Mode makes shooting possible even in low light conditions in which shooting is normally difficult, such as when observing wildlife.*3

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



Equipped with High Dynamic Range (HDR) mode

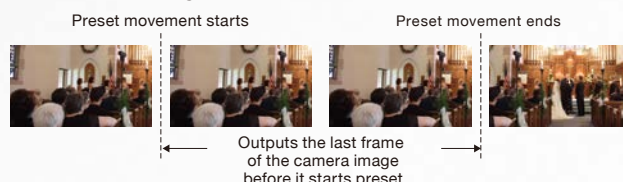
In addition to conventional Dynamic Range Stretch (DRS) and Digital Noise Reduction (DNR), the AW-HE40 is newly equipped with High Dynamic Range (HDR) mode. When shooting and synthesizing two images with differing exposure times, the AW-HE40 series can create video with high visibility that corrects 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 may be enabled 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 ON



Selection of SDI model/HDMI model and colors for flexible integration and application

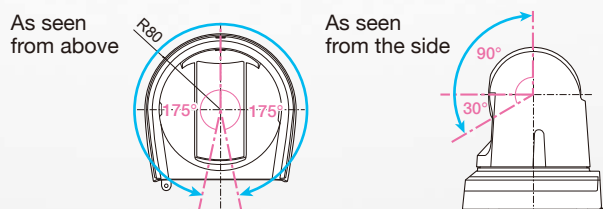
Supports 1080/59.94p (HDMI model only), 29.97p*4, 59.94i, 29.97PsF, 1080/50p (HDMI model only), 25p*4, 50i, 25PsF, 720/59.94p, and 50p video formats. Flexible operation in line with the application is made possible by a lineup that includes an SDI output model (AW-HE40SW/SK), optimal for video content 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.

Audio input function

The AW-HE40 series also supports audio input, embedding and encoding. The input from the camera's switchable mic/line input can be combined with the HD-SDI, HDMI, and streaming outputs for mixing, recording or transmission.

Exceptional pan-tilt performance for smooth shooting over a wide area*5

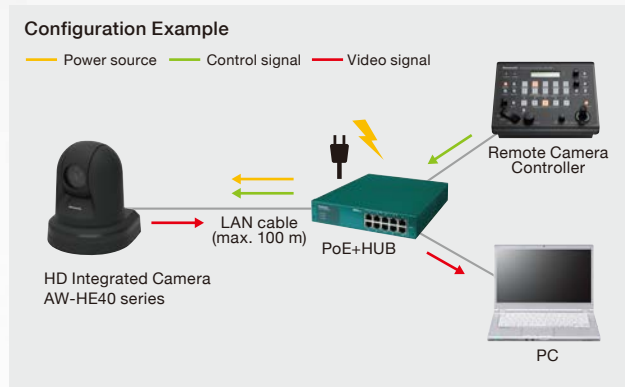
The pan range of $\pm 175^\circ$ and the tilt range of -30° to $+90^\circ$ cover a wide shooting area*5. Pan and tilt operate at a maximum speed of $90^\circ/\text{second}$ and respond quickly to remote control operation. They operate quietly at a sound level of NC35 or lower.



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

Supporting PoE+*1 for lower installation costs.

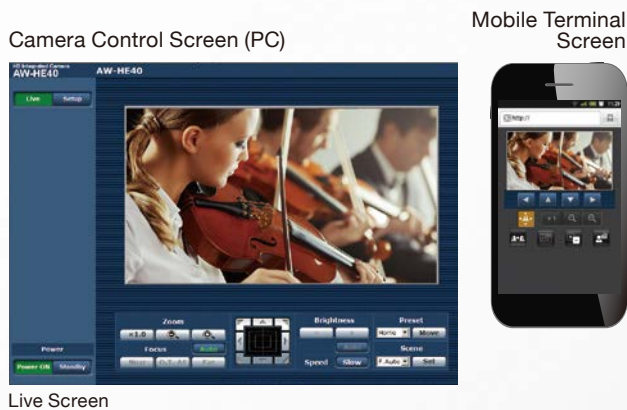
By connecting network devices that support the IEEE802.3at PoE+ standard, power can be supplied via LAN cable. Since it is not necessary to install a power supply or even a local AC outlet, installation costs can be significantly reduced.



IP control with image monitoring using PC, Mac and mobile terminals.

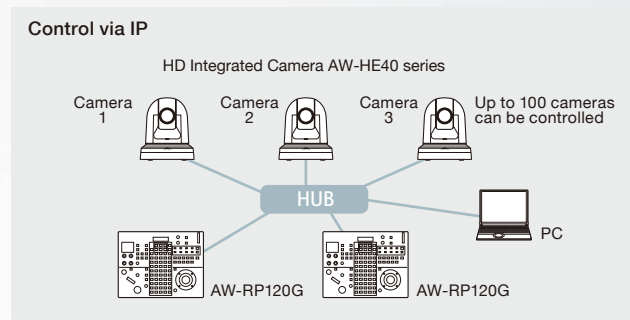
Equipped with image compression and IP transmission LSI. IP video*3 can be transmitted to up to five terminals*2 per camera. Using an IP browser, the camera can be controlled from a remote location, and IP video monitoring and remote camera control can be performed from a PC, Mac or mobile terminals*4 such as an iPhone, iPad or Android device, enabling easy operations.

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



Flexible IP Control Architecture Simplifies System Design and Operation*5

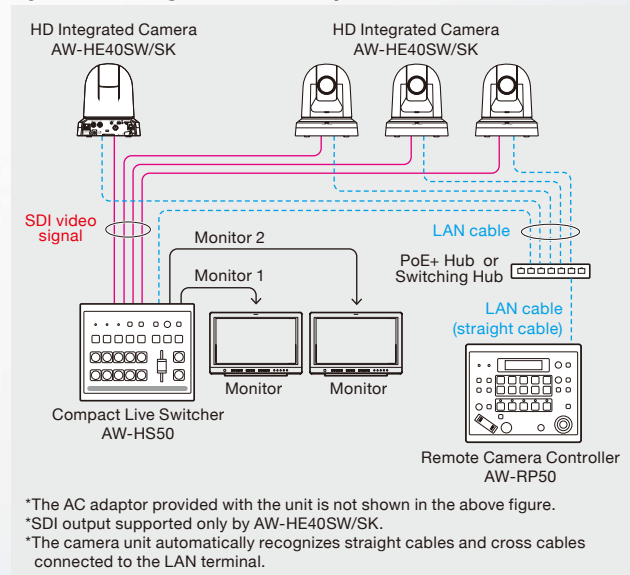
Up to 100 x AW-HE40 series cameras can be controlled via IP from a single AW-RP120G/RP50 or PC. An AW-HE40 series can also be simultaneously controlled by up to five AW-RP120G/RP50's via IP.



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.

System configuration example



System Camera Options

As of November 2014

Remote Camera Controller AW-RP50 	Remote Camera Controller AW-RP120G (AC adaptor (DC12 V) is required separately.) 	Remote Operation Panel AK-HRP200G (AC adaptor (DC12 V) is required separately.) 
Wireless Remote Control AW-RM50G ("AA", "R6" or "LR6" battery x 2 are not included.) 	Compact Live Switcher AW-HS50 	Direct Ceiling Mount Bracket WV-Q105A 

*1: Abbreviation of Power over Ethernet Plus.

*2: Depends on your network environment.

*3: Supports only SD video output.

*4: Only one Android™ device can be connected to one camera.

*5: Controller upgrade required. For details, please refer to the "service and support" section on the Panasonic website (<http://pro-av.panasonic.net/>).

Specifications

As of November 2014

GENERAL	Power requirements		DC 12 V (Supplied AC adaptor) DC 42 to 57 V (PoE+ power supply)		Electronic shutter speed	During Full Auto:		
	Current consumption		1.2 A (Supplied AC adaptor) 0.4 A (PoE+ power supply)			1/30 to 1/2000[59.94 Hz]		
	Ambient operating temperature		0 °C to 40 °C (32 °F to 104 °F)			1/25 to 1/2000[50 Hz]		
	Storage temperature		-20 °C to 50 °C (-4 °F to 122 °F)			During Auto:		
	Allowable humidity ranges		20 % to 90 % (no condensation)			1/60 to 1/2000[59.94 Hz]		
	Mass		Approx. 1.5 kg (3.30 lb)			1/50 to 1/2000[50 Hz]		
	Dimensions (W x H x D)		160 mm × 186 mm × 166 mm (6-5/16 inches x 7-41/128 inches x 6-17/32 inches) (excluding protrusions, direct ceiling mount bracket)			During Manual:		
	Finish		AW-HE40HW / AW-HE40SW: Pearl white AW-HE40HK / AW-HE40SK: Metallic black			1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000[59.94 Hz] 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000[50 Hz]		
Controller supported*1		AW-RP50, AW-RP120G, AK-HRP200G		Synchro scan		59.94 Hz to 660.09 Hz[59.94 Hz] (255 steps) 50.00 Hz to 570.12 Hz[50 Hz] (255 steps)		
INPUT	Power		DC 12 V IN, PoE+ (IEEE802.3at standard)		Gamma		Off, Normal (Low, Mid, High), Cinema	
	MIC/LINE input		Stereo mini-jack (ø3.5 mm) 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 ± 0.5 V •Mic input level:–60 dBV ± 3 dBV [Line input] •Input level:–10 dBV ±3 dBV		White balance		ATW, AWB A, AWB B, 3200K, 5600K, VAR (2400K to 9900K)	
			Chroma amount variability		±3 step			
OUTPUT	Video Output	AW-HE40H HDMI	HDMI connector • HDCP is not supported. • Viera Link is not supported.		Scene file		Full Auto, Manual1, Manual2, Manual3	
		AW-HE40S HD SDI	Compliant with the SMPTE292M standards/75 Ω (BNC x 1)		Color bars		FULL BAR	
INPUT/ OUTPUT	Video Output Connector	LAN	LAN connector for IP control (RJ-45) Equipped with straight/crossover cable auto detection function		Output format		HD 1080: 59.94p/50p (AW-HE40H only) 1080: 59.94i/50i 1080: 29.97p/25p 1080: 29.97PsF/25PsF 720: 59.94p/50p	
		RS-232C	Mini DIN 8-pin (IN) Mini DIN 8-pin (OUT)					
		RS-422	CONTROL IN RS422A (RJ-45)					
		USB	Mini-B port (Used for maintenance)					
		SD card	microSD card slot (Used for maintenance)					
FUNCTIONS AND PERFORMANCE	[Camera unit]				Synchronization system		Internal synchronization	
	Imaging sensors		1/2.3-type MOS		Image stabilization		Electronic	
	Lens		Motorized 30x zoom, F1.6 to F4.7[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)]		[Pan-tilt head unit]			
	Focus		Switching between auto and manual		Installation method		Stand-alone (Desktop) or suspended (Hanging)*4	
	Focus distance		Entire zooming range: 1.2 m (3.94 ft) Wide end: 10 cm (0.33 ft)		Camera/pan-tilt head control		IP connecting cable When connecting through a hub: • LAN cable*5 (category 5 or above),max. 100 m (328 ft) When using a PoE+ hub: • LAN cable*5 (category 5e or above),max. 100 m (328 ft) When a hub is not used: • LAN cable*5 (category 5 or above),max. 100 m (328 ft) AW protocol connecting cable • LAN cable*5 (category 5 or above,straight cable), max. 1000 m (3280 ft) Standard protocol connecting cable • Mini DIN 8-pin cable, male	
	Color separation optical system		On-chip color filter system					
	Minimum illumination		0.7 lx (50 IRE, F1.6, 48 dB, 1/60 without accumulation) 59.94 Hz 0.35 lx (50 IRE, F1.6, 48 dB, 1/30 with accumulation [Frame Mix 6 dB])					
			0.7 lx (50 IRE, F1.6, 48 dB, 1/50 without accumulation) 50 Hz 0.35 lx (50 IRE, F1.6, 48 dB, 1/25 with accumulation [Frame Mix 6 dB])					
	Horizontal resolution		1000 TV lines Typ (Center area)		Pan-tilt operation speed		Maximum speed during preset:300°/s Maximum speed during manual:90°/s	
	Gain selection*2		Auto, 0 dB to 48 dB (3 dB step)		Panning range		±175°	
	Frame mix*3		Auto, Off, 6 dB, 12 dB, 18 dB, 24 dB		Tilting range*6		–30° to 90°	
				Quietness		During preset: NC40 or less During manual: NC35 or less		
				[Network]				
				Image resolution		JPEG VGA (640 x 360), QVGA (320 x 180) Max. 30 fps		
				Supported protocol		IPv4: TCP/IP, UDP/IP, HTTP, DHCP, DNS		
				i-OS, Android support		JPEG image display		

*1: It may be necessary to upgrade the version of the controller in order to support the unit. For the latest information on supported OS/browsers, please refer to "service and support" section on the Panasonic website (<http://pro-av.panasonic.net/en/>).
 *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: To ensure safety, the unit must be secured using the mount bracket supplied. *5: Use of an STP (shielded twisted pair) cable is recommended. *6: Depending on the pan or tilt position, the camera may be reflected in the image.
 ● Microsoft®, Windows®, Windows® 7, Windows® 8, Windows® 8.1 and Internet Explorer® are either registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.
 ● Apple, Mac, OS X, iPhone, iPod Touch, iPad, and Safari are registered trademarks of Apple Inc., in the United States and other countries. ● Android™ is a trademark of Google Inc.

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]

Argentina +54 11 4122 7200
 Australia +61 (0) 2 9491 7400
 Bahrain +973 252292
 Brazil +55 11 3889 4035
 Canada +1 905 624 5010
 China +86 10 6515 8828
 Hong Kong +852 2313 0888
 Czech Republic: +421 (0) 903 447 757
 Denmark +45 43 20 08 57
 Egypt +20 2 23938151
 Finland, Latvia, Lithuania, Estonia +358 (9) 521 52 53
 France +33 (0) 1 47 91 64 00
 Germany, Austria, Switzerland +49 (0) 6103 313887
 Greece +30 210 96 92 300
 Hungary +36 (1) 382 60 60
 India +91 1860 425 1860
 Indonesia +65 6277 7284
 Iran (Vida) +98 21 2271463
 (Panasonic Office) +98 2188791102
 Italy +39 02 6788 367
 Jordan +962 6 5859801
 Kazakhstan +7 727 298 0891
 Korea +82 2 2106 6641
 Kuwait +96 522431385

Lebanon +96 11665557
 Malaysia +60 3 7809 7888
 Mexico +52 55 5488 1000
 Netherlands, Belgium +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
 Portugal +351 21 425 77 04
 Romania, Albania, 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, Montenegro, Slovenia +421 (0) 903 447 757
 South Africa +27 11 3131622
 Spain +34 (93) 425 93 00
 Sweden +46 (8) 680 26 41
 Syria +963 11 2318422/4
 Taiwan +886 2 2227 6214
 Thailand +662 731 8888

Turkey +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
 Vietnam +65 6277 7284



JQA-0443



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