

# 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.



\* 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.

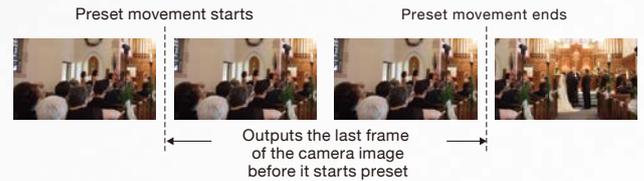


\* Images are simulated.

## 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

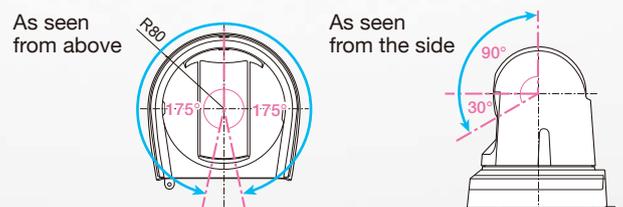
Supports 1080/59.94p (HDMI model only), 29.97p\*4, 59.94i, 29.97PsF, 1080/50p (HDMI model only), 25p\*4, 50i, 25PsF, 720/59.94p, and 50p video formats. Flexible operation in line with the application is made possible by a lineup that includes an SDI output model (AW-HE40SW/SK), optimal for video content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

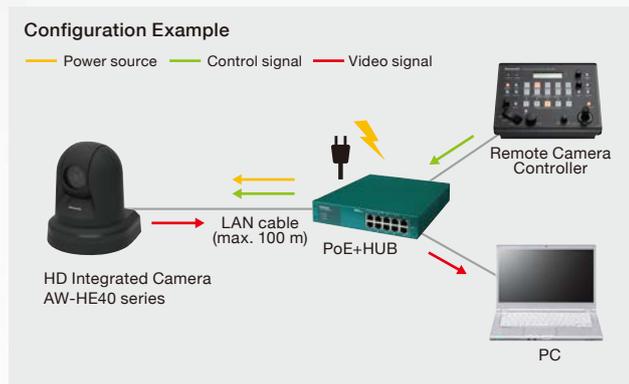
The pan range of  $\pm 175^\circ$  and the tilt range of  $-30^\circ$  to  $+90^\circ$  cover a wide shooting area\*5. Pan and tilt operate at a maximum speed of  $90^\circ$ /second and respond quickly to remote control operation. They operate quietly at a sound level of NC35 or lower.



\* 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/>).

### Camera Control Screen (PC)



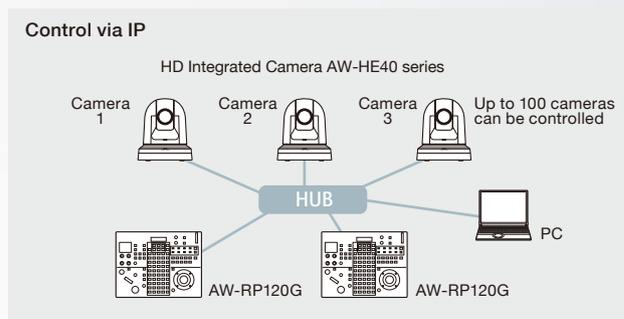
Live Screen

### Mobile Terminal Screen



## Flexible IP Control Architecture Simplifies System Design and Operation\*5

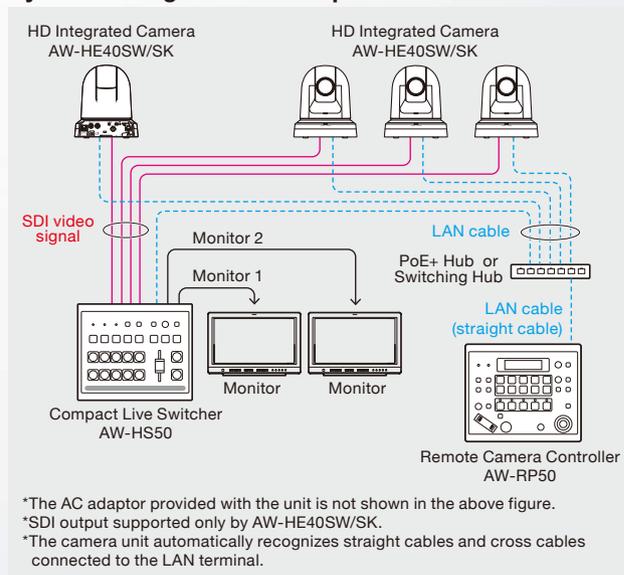
Up to 100 x AW-HE40 series cameras can be controlled via IP from a single AW-RP120G/RP50 or PC. An AW-HE40 series can also be simultaneously controlled by up to five AW-RP120G/RP50's via IP.



## 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

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

\*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/>).

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

\*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.  
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Please refer to the latest Information, etc. at the following Panasonic web site.  <http://pro-av.panasonic.net/>

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