

# Panasonic

BUSINESS

## AW-HE38HW/HK [HDMI Model]

HD Integrated PTZ Camera

For indoor use



AW-HE38HW

Features 22x optical zoom lens  
and support for PoE+\*<sup>1</sup>  
for outstanding operability  
and installation flexibility



AW-HE38HK

\*1: Abbreviation of Power over Ethernet Plus.



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

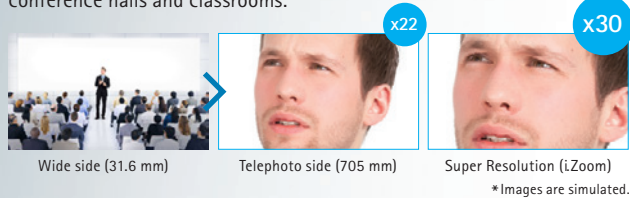
The integrated full HD camera AW-HE38HW/HK performs in a wide variety of onsite shooting applications that require high-quality video, such as conferences, lecture capture and other events, thanks to its high-performance zoom, wide angle of view and outstanding color reproducibility. In addition to IP video transmission, support for PoE+\*1 enables power to be supplied via a LAN cable\*2. The result is installation flexibility. It also supports HD-IP video output, output of video and audio via USB, and SD card recording.

## Developed 1/2.3-type MOS Sensor

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

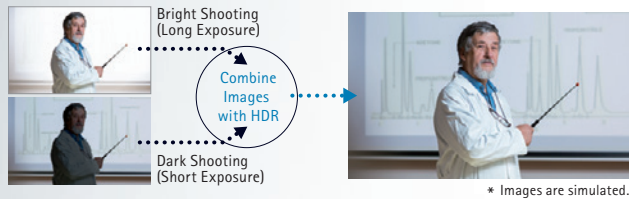
## High Performance Optical 22x Zoom Lens/ Super Resolution 30x Zoom

In addition to a 22x optical zoom, the AW-HE38HW/HK can zoom up to 30x while maintaining high resolution thanks to Super Resolution technology. It also features a 16x digital zoom\*3 and a 1.4x digital extender, which enables the AW-HE38HW/HK to shoot in large conference halls and classrooms.



## Equipped with High Dynamic Range (HDR) Mode

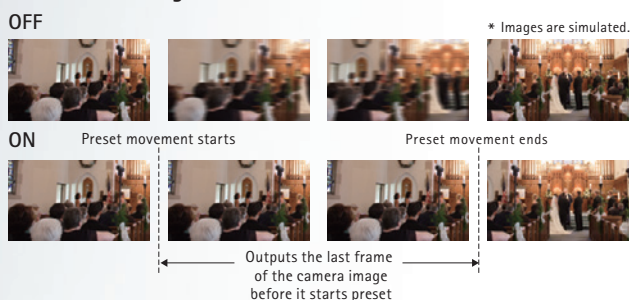
In addition to conventional Dynamic Range Stretch (DRS) and Digital Noise Reduction (DNR), the AW-HE38HW/HK is newly equipped with High Dynamic Range (HDR) mode. When shooting and synthesizing two images with differing exposure times, the AW-HE38HW/HK can create video with high visibility that corrects 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 enables 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



## Audio Input Function

The AW-HE38HW/HK also supports audio input, embedding and encoding. Audio output to IP is also supported. The ALC (Audio Automatic Level Control) in the original AW-HE38HW/HK 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.

## 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.

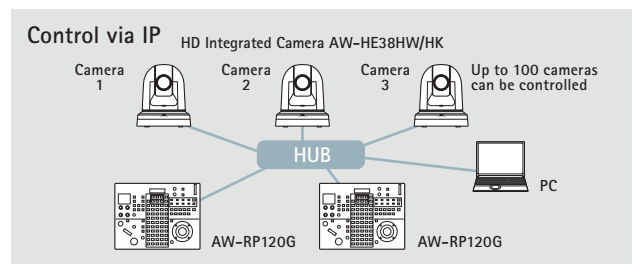
## Equipped with a JPEG Image Saving Function\*

The equipped JPEG Image Saving Function enables up to 99 still images (JPEGs) to be captured from video and saved to the microSD card. These images can easily be remotely saved, played back and deleted from a PC web browser connected via a LAN cable.

\*A version software update may be required for use.

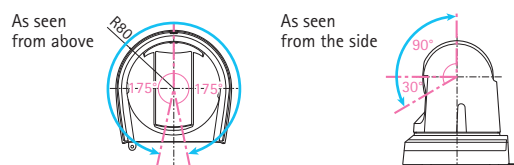
## Flexible IP Control Architecture Simplifies System Design and Operation\*4

Up to 100 x AW-HE38HW/HK cameras can be controlled via IP from a single AW-RP120G/RP50 or PC. An AW-HE38HW/HK can also be simultaneously controlled by up to five AW-RP120G/RP50's via IP.



## 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°/second and respond quickly to remote control operation. They operate quietly at a sound level of NC35 or lower.

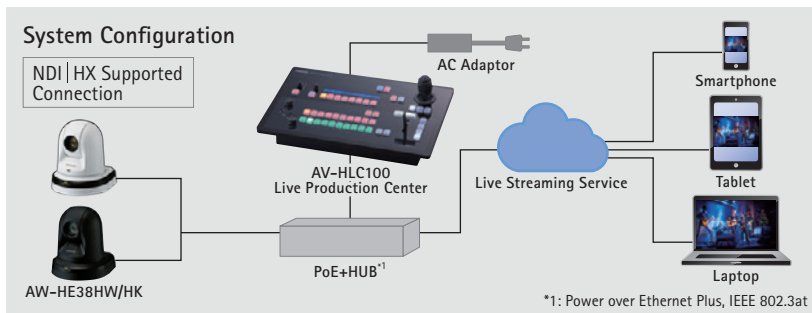


\*1: Abbreviation of Power over Ethernet Plus. \*2: The software for the AW-HE38HW/HK may need to be updated depending on the existing software version. For details, see the Panasonic website (<https://pro-av.panasonic.net/>). \*3: Picture quality is lower with the digital zoom. \*4: Controller upgrade required. For details, please refer to the "service and support" section on the Panasonic website (<https://pro-av.panasonic.net/>). \*5: Depending on the position of the pan and tilt, the unit itself may be reflected in the image.

# NDI|HX Compatibility for Excellent Video Streaming Quality

The AW-HE38HW/HK can be upgraded to an NDI|HX compatible model if purchasing a license from the NewTek website (<https://www.newtek.com/ndi/>). Highly efficient NDI|HX compatibility enables excellent broadcast streaming by encoding and transmitting high-quality video in real time. This technology eliminates the need for IP decoders, allowing input to be sent directly to the switcher.

\* Contact your local Panasonic vendor for further information.



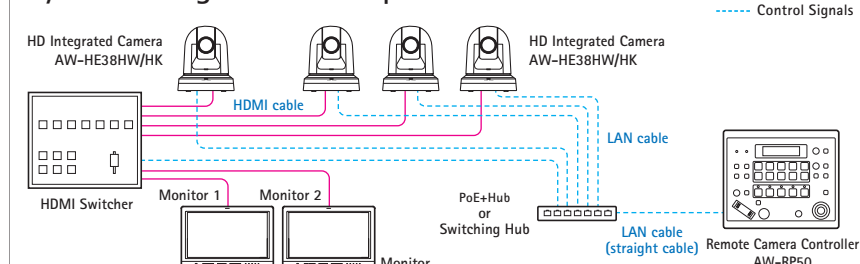
## Specifications

As of February, 2018

GENERAL		FUNCTIONS AND PERFORMANCE		
Power requirements	DC 12 V (Supplied AC adaptor) DC 42 V to 57 V (PoE+ power supply)	Output format	HD 1080:59.94p/50p 1080:59.94i/50i 1080:29.97p/25p 1080:29.97PsF/25PSF 720:59.94p/50p	
Current consumption	1.2 A (Supplied AC adaptor) 0.4 A (PoE+ power supply)	Synchronization system	Internal synchronization	
Ambient operating temperature	0 °C to 40 °C (32 °F to 104 °F)	[USB connection]	* This may vary depending on the operating environment.	
Storage temperature	-20 °C to 50 °C (-4 °F to 122 °F)	Video output	USB Video Class Ver1.0	
Allowable humidity ranges	20 % to 90 % (no condensation)	Video compression format	Motion JPEG	
Mass	Approx. 1.5 kg (3.30 lb)	Resolution	1920 x 1080, 1280 x 720, 640 x 360	
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]	Frame rate	max 30 fps (System frequency 59.94 Hz) max 25 fps (System frequency 50 Hz)	
Finish	[AW-HE38HW] Pearl white, [AW-HE38HK] Metallic black	Audio output	USB Audio Class Ver1.0	
Controller supported*1	AW-RP50, AW-RP120G, AK-HRP200G	Audio compression format	Linear PCM, 48 kHz, 16-bit, 2 channels	
Power	DC 12 V IN, PoE+ (IEEE802.3at standard)	Supported models	Devices standardly equipped with a USB 2.0 compatible port	
INPUT	Mic/line input	[Pan-tilt head unit]		
		Installation method	Stand-alone (Desktop) or suspended (Hanging)*4	
OUTPUT	Output Video	HDMI	[AW-HE38HW/HK] HDMI connector * HDCP is not supported. * VIERA Link is not supported.	
		LAN	LAN connector for IP control (RJ-45) Equipped with straight/crossover cable auto detection function	
INPUT/OUTPUT	Input/Output connector	RS-232C	Mini DIN 8-pin (IN) Mini DIN 8-pin (OUT)	
		RS-422	CONTROL IN RS422A (RJ-45)	
FUNCTIONS AND PERFORMANCE	[Camera unit]	USB	Mini-B port	
		SD card	microSD card slot	
FUNCTIONS AND PERFORMANCE	[Camera unit]	Imaging sensors	1/2.3-type MOS	
		Lens	AW-HE38HW/HK : Motorized 22x zoom, F1.6 to F4.3 [f=4.3 mm (1/164 inches) to 94.6 mm(3-23/32 inches); 35 mm (1-3/8 inches) equivalent: 31.6 mm (1-31/128 inches) to 705.0 mm (27-49/64 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	
		Electronic shutter speed	During 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]
		Synchro scan	59.94 Hz : 59.94 Hz to 660.09 Hz 50 Hz : 50.00 Hz to 570.12 Hz	
		Gamma	Off, Normal (Low, Mid, High), Cinema	
White balance	AWB A, AWB B, ATW, 3200K, 5600K, VAR (2400K to 9900K)			
Chroma amount variability	±3 step			
Scene file	Full Auto, Manual1, Manual2, Manual3			
FUNCTIONS AND PERFORMANCE	[Camera unit]	IP connecting cable	When connecting through a hub: LAN cable*6 (category 5 or above), max. 100 m (328 ft) When using a PoE+ hub: LAN cable*6 (category 5e or above), max. 100 m (328 ft) When a hub is not used: LAN cable*6 (category 5 or above), max. 100 m (328 ft)	
		AW protocol connecting cable	LAN cable*6 (category 5 or above, straight cable), max. 1000 m (3280 ft)	
		Standard protocol connecting cable	Mini DIN 8-pin cable, male	
		[SD card recording]		
		SD card type	micro SDHC (4 GB to 32 GB), micro SDXC (64 GB to 128 GB), Speed class 10 or higher	
		System frequency	59.94 Hz/50 Hz	
		Video compression format	MPEG-4 AVC/H.264 High Profile	
		Audio compression format	AAC-LC (48 kHz, 16 bit, 2 ch, 128 kbps)	
		SD card recording	MPEG-4 AVC file standard compliant (.MP4)	
		Recording format	1920 x 1080/59.94p, 1920 x 1080/50p, 1920 x 1080/29.97p, 1920 x 1080/25p, 1280 x 720/59.94p, 1280 x 720/50p, 1280 x 720/29.97p, 1280 x 720/25p	
		[Network]		
		Resolution	JPEG VGA (640 x 360), QVGA (320 x 180) max.30 fps 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.30 fps H.264 1920 x 1080, 1280 x 720, 640 x 360, 320 x 180 max.60 fps	
		Supported protocol	IPv4 TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTMP/RTCP, FTP, DHCP, DNS, NTP, IGMP, UPnP, ICMP, ARP, RTPSPoverTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast IPv6 TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTMP/RTCP, FTP, DHCPv6, DNS, NTP, ICMPv6(MLD), RTSPoverTCP, RTSPoverHTTP, SSL(TLS), MultiCast/UniCast	
		i-OS, Android support	JPEG image display	
		ACCESSORIES	[Camera unit]	Mount bracket for installation surface (Hanging*7 / Desktop): 1
Drop-prevention wire (already attached to the unit): 1				
Bracket mounting screws (bind-head) M4 x 10 mm: 4				
Main unit mounting screw (with flat washer, spring washer) M3 x 6 mm: 1				
Power cable (1.5 m (4.92 ft)) [AW-HE38HW/HKPJ]: 1, [AW-HE38HW/HKEJ]: 3, [AW-HE38HW/HKPC]: 1 AC adaptor: 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: To ensure safety, the unit must be secured using the mount bracket supplied.  
\*5: Depending on the pan or tilt position, the camera may be reflected in the image. \*6: Use of an STP (shielded twisted pair) cable is recommended.  
\*7: To ensure more safety, AW-HE38HW/HK can be secured by using the direct ceiling mount bracket (WV-Q105A).

## System Configuration Example



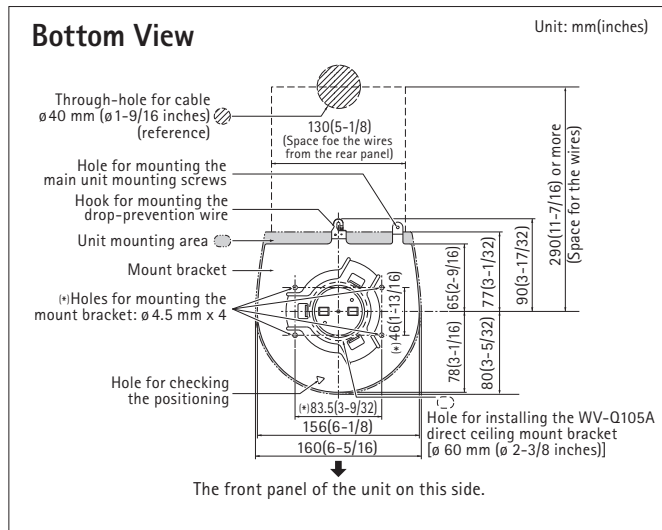
\*The AC adaptor provided with the unit is not shown in the above figure.  
\*The camera unit automatically recognizes straight cables and cross cables connected to the LAN terminal.

## Rear View



## 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

### Auto Tracking Software Key AW-SF100/AW-SF200

- 2 Additional Licenses AW-SF202
- 3 Additional Licenses AW-SF203

A 30-day Free Trial is Available

- Motion detection and face detection technologies using video streaming from camera achieves smooth auto tracking regardless of where the person is facing.
- AW-SF100 allows a single PTZ camera to be controlled on either a stand-alone or web application version.
- AW-SF200 enables simultaneous auto tracking and centralized control of multiple cameras.\*1

\*1: Up to four cameras per server can be controlled simultaneously.

### PTZ Control Center

Free Software

- Intuitive GUI with the capability to control multiple cameras.
- Image quality adjustment and pan-tilt-zoom control on a GUI.
- Easy to recall presets by clicking preset buttons with thumbnails.



Main View

### PTZ Virtual USB Driver

Free Software

- High quality video perfect for web conferencing, utilizing a PTZ camera on the network as a USB camera.
- Automatic detection of connected cameras, and network settings supported.

\* For further information on the optional software, please see "Software Download" on the Panasonic website <https://pro-av.panasonic.net/>.

## System Camera Options

As of February, 2018

<b>Live Production Center</b> <b>AV-HLC100</b> Scheduled for release in the spring of 2018.	<b>Control Assist Camera</b> <b>AW-HEA10W</b>		<b>Control Assist Camera</b> <b>AW-HEA10K</b>	
 <p>* Not available in some areas.</p>	<b>Remote Camera Controller</b> <b>AW-RP50</b>		<b>Remote Camera Controller</b> <b>AW-RP120G</b> (AC adaptor (DC12 V) is required separately.)	
<b>Remote Operation Panel</b> <b>AK-HRP200G</b> (AC adaptor (DC12 V) is required separately.)	<b>Wireless Remote Control</b> <b>AW-RM50G</b> ("AA", "R6" or "LR6" battery x 2 are not included.)		<b>Direct Ceiling Mount Bracket</b> <b>WV-Q105A</b>	

For more information, please visit Panasonic web site



<https://pro-av.panasonic.net/>

\* Specifications are subject to change without notice.

# Panasonic®

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