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

*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 freezes 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 ±175 ° and the tilt range of -30 ° to +90 ° 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.

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.

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.

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.

*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/en/).

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

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
("AAA", "R6" or "LR6" battery x 2 are not included)

Compact Live Switcher
AW-HS50

Direct Ceiling Mount Blacket
WV-Q105A

*1: Abbreviation of Power over Ethernet Plus.
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*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 adapter) DC 12 V to 5 V (PoE+ power supply)
- **Current consumption**: 1.2 A (Supplied AC adapter) 0.4 A (PoE+ power supply)
- **Ambient operating temperature**: 0°C to 40°C (32°F to 104°F)
- **Storage temperature**: 0°C to 50°C (32°F to 122°F)
- **Allowable moisture ranges**: 20 % to 90 % (no condensation)
- **Mass**: Approx. 1.5 kg (3.30 lb)
- **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)

**Input**

- **Output**

  - **Power**: DC 12 V IN, PoE+ (IEEE802.3at standard)
  - **Microphone**: Stereo mini-jack (3.5 mm) Input impedance: Approx. 2 kΩ (unbalanced)
  - **Supported microphones**: Mic input plug in power, on/off switching via menu
  - **Supplied voltage**: 2.5 V ± 0.5 V
  - **Input level**: –10 dBV ± 3 dBV
  - **Gain selection**: *2: During Auto, 6 dB to 48 dB (6 dB step)
    *3: During Auto, 0 dB, 6 dB, 12 dB and 18 dB are available for Auto F.Mix Max Gain setting.
  - **Focus**: Switching between auto and manual
  - **Minimum illumination**: 0.7 lx (50 IRE, F1.6, 48 dB, 1/60 without accumulation)
  - **Color separation optical system**: On-chip color filter system
  - **Imaging sensors**: 1/2.3-type MOS
  - **Lens**: Motorized 30x zoom, F1.6 to F4.7
  - **Imaging format**: HD, SD (35 mm (1-3/8 inches))
  - **Focus distance**: Entire zooming range: 1.2 m (3.94 ft)
  - **Focus switching**: Between auto and manual
  - **Quickness**: During preset: NC40 or less
  - **Image stabilization**: Electronic
  - **Gamma**: Off, Normal (Low, Mid, High), Cinema
  - **Focus distance**: Entire zooming range: 1.2 m (3.94 ft)
  - **Image resolution**: JPEG
  - **Maximum speed during manual**: 90°/s
  - **Pan-tilt operation speed**: Maximum speed during preset: 30°/s

**Output**

- **LAN**: LAN connector for IP control (RJ-45)
  - **LAN**: Minimal size (8-pin)
  - **Mini DIN 8-pin (OUT)**
  - **CONTROL IN**: Mini DIN 8-pin cable, male
  - **IP connecting cable**: AW-HE40H (AW-HE40SW) compliant with the SMPT/293M standard/75 D (BNC x 1)
  - **Schedule**: 0.76 x (50IRE, F1.6, 48 dB, 1/30 without accumulation)
  - **Minimum illumination**: 0.7 lx (50 IRE, F1.6, 48 dB, 1/30 without accumulation)
  - **Color separation optical system**: On-chip color filter system
  - **Imaging sensors**: 1/2.3-type MOS
  - **Lens**: Motorized 30x zoom, F1.6 to F4.7
  - **Focus distance**: Entire zooming range: 1.2 m (3.94 ft)
  - **Focus switching**: Between auto and manual
  - **Quickness**: During preset: NC40 or less
  - **Image stabilization**: Electronic
  - **Gamma**: Off, Normal (Low, Mid, High), Cinema

**Functions and performance**

- **Pan-tilt head control**: Stand-alone (Desktop) or suspended (Hanging)**
- **Pan-tilt operation speed**: Maximum speed during preset: 30°/s
- **Pan-tilt operation speed**: Maximum speed during manual: 90°/s
- **Panning range**: ±175°
- **Tilting range**: –30° to 90°
- **Quietness**: During preset: NC40 or less
- **Support protocol**: IP (TCP/IP, UDP/IP, HTTP, DHCP, DNS)
- **Supported protocol**: IPv4 (TCP/IP, UDP/IP, HTTP, DHCP, DNS)
- **Supported protocol**: IPv6 (TCP/IP, UDP/IP, HTTP, DHCP, DNS)
- **Camera/pan-tilt head control**: Minimal size (8-pin)
- **LAN**: IP connection using a hub:
  - **LAN cable**: 100 m (328 ft)
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  - **LAN cable**: 100 m (328 ft)
- **Camera/pan-tilt head control**: Minimal size (8-pin)
- **LAN cable**: Category 5 or above, 100 m (328 ft)
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- **LAN cable**: Category 5 or above, 100 m (328 ft)

**Operating environment**

- **Ambient temperature**: 8 % to 90 % (no condensation)
- **Allowable humidity range**: 8 % to 90 % (no condensation)
- **Dimensions (W x H x D)**: 165 mm × 186 mm × 166 mm (6-5/16 inches x 7-41/128 inches x 6-17/32 inches)
- **Current consumption**: 1.2 A (Supplied AC adaptor) 0.4 A (PoE+ power supply)
- **Power requirements**: DC 12 V (Supplied AC adapter) DC 12 V to 5 V (PoE+ power supply)
- **Ambient operating temperature**: 0°C to 40°C (32°F to 104°F)
- **Storage temperature**: 0°C to 50°C (32°F to 122°F)
- **Allowable moisture ranges**: 20 % to 90 % (no condensation)
- **Mass**: Approx. 1.5 kg (3.30 lb)
- **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)

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

[http://pro-av.panasonic.net/](http://pro-av.panasonic.net/)