Capture and Deliver the Moment with 4K over IP
4K image quality gives greater depth to the video, and IP video output flexibly delivers content

The compact AW-UE70W/K integrated pan-tilt remote camera can output 4K video via HDMI, USB and IP transmission. By introducing technological capabilities developed in our 4K cameras for movie production and TV station use, we created the AW-UE70W/K as a 4K integrated camera that can be effectively used in a variety of environments. It achieves 4K shooting in situations where higher image quality is necessary, such as lecture recordings and conference, wedding and funeral hall content production.

### 4K 1 A four-drive lens system for high-image-quality zooming in 4K shooting

With the four-drive lens system, three zoom lenses and one focus lens are driven independently and simultaneously. Since the four groups of lenses can be driven separately, we were able to efficiently minimize the size and drive range of each lens and thereby achieve a smaller body and a zoom mechanism with high magnification and high image quality. Despite its compact size, the AW-UE70W/K has a high-resolution 20x optical zoom and a high-performance iA 22x zoom (4K mode).

### 4K 2 Four types of output connectors. 4K output via HDMI, USB and LAN.

On the back of the unit, there are four types of output connectors which are HDMI, SDI, USB and LAN. 4K video output can be done not only via HDMI, but also via USB and LAN. This makes it possible to build a flexible system matching the specific objectives and environment.

**Supported formats with each output connector**

<table>
<thead>
<tr>
<th>Connector</th>
<th>Supported Formats</th>
</tr>
</thead>
<tbody>
<tr>
<td>HDMI</td>
<td>2160/29.97p, 2160/25p, 1080/59.94p, 1080/50p, 1080/59.94i, 1080/50i, 1080/29.97PsF, 1080/25PsF, 1080/29.97p, 1080/25p, 720/59.94p, 720/50p</td>
</tr>
<tr>
<td>SDI</td>
<td>1080/59.94p, 1080/50p, 1080/59.94i, 1080/50i, 1080/29.97PsF, 1080/25PsF, 1080/29.97p, 1080/25p, 720/59.94p, 720/50p</td>
</tr>
<tr>
<td>USB</td>
<td>2160/5p, 1080/30p, 1080/25p, 1080/15p, 1080/12.5p, 1080/5p, 720/30p, 720/25p, 720/15p, 720/12.5p, 720/5p, 360/30p, 360/25p, 360/15p, 360/12.5p, 360/5p</td>
</tr>
<tr>
<td>LAN</td>
<td>For details, please see &quot;List of Supported Multi-Streaming Outputs&quot; on page 4.</td>
</tr>
</tbody>
</table>
1/2.3-type MOS Sensor
Equipped with a 1/2.3-type MOS sensor and DSP (Digital Signal Processor) for high sensitivity and high resolution.

High Performance Optical 20x Zoom Lens/ Super Resolution 30x Zoom
In addition to a 20x optical zoom, the AW-UE70W/K series can zoom up to 30x (22x when in 4K mode) while maintaining high resolution thanks to Super Resolution technology. It also features a 1x digital zoom and a 4.4x, 2.0x, 4.0x, 6.0x, and 8.0x digital extender zoom which can be used for 4K focus assist. These capabilities enable the AW-UE70W/K 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. The AW-UE70W/K can also be set to switch to the mode automatically depending on surrounding light levels.

Audio Input Function
The AW-UE70W/K also supports audio input, embedding and encoding. Audio output to IP is also supported. The ALC (Audio Automatic Level Control) in the AW-UE70W/K 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.

Both SDI and HDMI are supported, and There is Also an External Synchronization Signal Input Connector
For SDI/HDMI output, 2160/29.97p (HDMI only), 2160/25p (HDMI only), 1080/59.94p, 29.97p, 59.94i, 29.97Psf, 1080/50p, 25p, 50i, 25PsF, 720/59.94p, and 50p image formats are supported. In addition, there is an external synchronization signal input connector, and BBS (Black Burst Sync) and tri-level synchronization are supported.

Video/Audio Output with USB
USB Video Class 1.0 and USB Audio Class 1.0 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.

MicroSD Card Recording Function
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.

Supported formats for micro SD (recording):

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.

*1: Picture quality is lower with the digital zoom.
*2: Cannot be used when in 4K mode.
*3: Video output is monochrome.
*4: External synchronization synchronizes with SDI video signals. It does not synchronize with HDMI video signals or IP video signals.
*5: There may be instances where it is not possible to record in the same format as the output video.
Full HD Video Output Via IP Transmission*1

In addition to HDMI, SDI and USB output, production quality 4K/full HD video output via IP transmission is supported. For 4K video output via IP transmission, there can be one channel of IP video output of up to 30 frames/second. At full HD image quality, IP video output up to 60 frames/second is possible. One camera delivers up to four channels*1 of IP streaming video (H.264), and simultaneous transmission to as many as 14 devices is supported*2, so that flexible system setup is possible to meet various application needs.

NDI|HX Compatibility for Excellent Video Streaming Quality

The AW-UE70W/K can be upgraded to an NDI|HX compatible model if purchasing a license from the NewTek website (https://pro-av.panasonic.net/en/ndihx_support/index.html). 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.

Supporting PoE+*6 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

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.

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

Flexible IP Control Architecture Simplifies System Design and Operation*7

Up to 100 x AW-UE70W/K cameras can be controlled via IP from a single AW-RP120G/RP50 or PC. An AW-UE70W/K can also be simultaneously controlled by up to five AW-RP120G/RP50’s via IP.

List of Supported Multi-Streaming Outputs (When priority mode "IP" or "IP (4K)" is selected)

<table>
<thead>
<tr>
<th>Settings</th>
<th>H.264</th>
<th>JPEG</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH1</td>
<td>CH2*3</td>
<td>CH3*3</td>
</tr>
<tr>
<td>1920 × 1080</td>
<td>1280 × 720</td>
<td>640 × 360</td>
</tr>
<tr>
<td>1920 × 1080</td>
<td>1280 × 720</td>
<td>640 × 360</td>
</tr>
</tbody>
</table>

| IP (H.264) | 3840 × 2160 | — | 3840 × 2160 |
| IP (IP) | 50 Hz | 25/12.5/5 fps | 25/12.5/5 fps |
| IP (4K) | 30/15/5 fps | — | 15/5 fps |

<table>
<thead>
<tr>
<th>Frame rate</th>
<th>CH1</th>
<th>CH2</th>
<th>CH3</th>
<th>CH4*4</th>
</tr>
</thead>
<tbody>
<tr>
<td>60/30/15/5 fps</td>
<td>1280 × 720</td>
<td>640 × 360</td>
<td>320 × 180</td>
<td></td>
</tr>
<tr>
<td>30/15/5 fps</td>
<td>640 × 360</td>
<td>320 × 180</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: 1920 × 1080 60 fps output is 1ch display only. For 2ch or more, display is max. 30 fps. Also, JPEG output is up to 3ch. *2: Depends on your network environment. *3: Settable when HDR is “Off”. *4: Settable when HDR is set to “Off” and the frame rate is other than 60fps (or 50fps). *5: Not settable when HDR is “Off”. *6: Abbreviation of Power over Ethernet Plus. *7: Controller upgrade required. For details, please refer to the “service and support” section on the Panasonic website (https://pro-av.panasonic.net).
Exceptional Pan–tilt Performance for Smooth Shooting Over a Wide Area*1

The pan range of ±175° and the tilt range of -30° to +90° 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.

Easy Wireless Control Using an iPad*2 with a Control Assist Camera*3

- Used in combination with a 4K/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 4K/HD Integrated Camera*3 to the tapped position.
- 4K/HD Integrated Camera*3 pan, tilt, and zoom can be easily controlled from an iPad.
- Up to nine preset positions can be registered.

*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.

System Camera Options

<table>
<thead>
<tr>
<th>Live Production Center</th>
<th>Control Assist Camera</th>
<th>Remote Camera Controller</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV–HLC100</td>
<td>AW–HEA10W/K</td>
<td>AW–RP50</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remote Camera Controller AW–RP120G (AC adapter (DC12 V) is required separately)</td>
<td>Remote Operation Panel AK–HRP200G (AC adapter (DC12 V) is required separately)</td>
</tr>
<tr>
<td></td>
<td>Wireless Remote Control AW–RM50G (&quot;AA&quot;, &quot;R6&quot; or &quot;LR6&quot; battery x 2 are not included)</td>
<td>Compact Live Switcher AW–HS50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Direct Ceiling Mount Bracket WV–Q105A</td>
</tr>
</tbody>
</table>

*2: An iPad (sold separately) and a wireless AP (sold separately) are required. Please install the iPad application "PTZ Cntrl" (free). For details, please visit Panasonic AW–HEA10W/K website (https://pro-av.panasonic.net/en/sales_o/camera/aw-hea10/).


As of April, 2018
**Application 01: Signage**

Signage that expresses the mood of the location by 4K video

Place AW-UE70W/K cameras in a large commercial facility or event venue to record the live footage. You can then show 4K video on a large video wall. By splitting the screen display, you can show video from a variety of spots.

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**Application 02: Video Production**

Production of 4K video using compact remote cameras

Efficiently add AW-UE70W/K cameras to a 4K switcher of an existing studio. This allows you to build a compact 4K program production system capable of handling professional uses while achieving good cost performance.

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**Application 03: Web Conferencing**

Web conferences with high-definition views from the venue as a whole to individual speakers

Set up AW-UE70W/K cameras to achieve high-resolution zooming in 4K/HD at web conferences. Catch the big picture with high-definition video that shows all the details including the expressions of individual speakers by high-resolution zooming. That way, you can shoot conference video that gives a feel of almost like being there.
### SPECIFICATIONS

#### Power requirements
- DC 12 V (supplied AC adapter)
- 4.2 V to 5.7 V (4.2 V: external supply)

#### Current consumption
- 3.3 A (AC power supply)

#### Ambient operating temperature
- 0°C to 40°C (32°F to 104°F)

#### Storage temperature
- 20°C to 60°C (70°F to 140°F)

#### Atmospheric humidity range
- 5% to 90% (non-condensing)

#### Mass
- Approx. 1.5 kg (3.3 lb)

#### Dimensions (H x W x D)
- (4.5/8 x 7.5/32 x 7.3/64 inches) (excluding protrusions, direct ceiling mount bracket)

#### Finish
- [AW-UE70W] Framed face: Black
- [AW-UE70K] Framed face: Metallic black

### COMPUTER REQUIREMENTS

#### OS
- Mac OS X 10.8: Safari 6.2
- Mac OS X 10.9: Safari 7.1
- Mac OS X 10.10: Safari 8.0

#### Processor
- 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)

#### Hard Disk Drive
- For Windows: 10 GB or more

#### Network
- For Windows: 100BASE-T or 1000BASE-T port x 1

#### Image display function
- Resolution: 1024 x 768 pixels 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
  - Windows® Internet Explorer® 11.0
  - Microsoft® Office Pro 64-bit/32-bit
  - Windows® Internet Explorer® 10.0
  - Windows® Internet Explorer® 8.0

- Mac
  - OS X 10.8: Safari 6.2 / OS X 10.9: Safari 7.1 / OS X 10.10: Safari 8.0

#### Audio/Video
- USB Video Class
- HD: 1000 TV lines Typ (Center area)

#### Functions and performance
- Frame rate
  - HD: 25 fps (59.94 Hz only)
  - Max 25 fps (50 Hz)

#### SIZE AND MASS
- Approx. 1.5 kg (3.3 lb)

#### ACCESSORIES
- Power cable (1.5 m [4.92 ft]): 1
- Bracket mounting screws (bind-head) M4 x 10 mm: 4
- Mount bracket for installation surface (Hanging* 10 / Desktop): 1
- CD-ROM: 1

### NETWORK

- Transfer models (FW)
  - [Network]
  - [Camera/pan-tilt head control]
  - [Camera control]
  - [Camera/pan-tilt head control]

#### Supported protocol
- IP
- [H.264]
- [RTSP/RTCP]
- [FTP]
- [TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP, RTP/RTCP, FTP, DHCP, DNS, NTP, IGMP, UPnP, ICMP, ARP, RTSP/UDP/FTP, RTSP/HTTP/FTP, RTSP/FTP/HTTP/SMTP, MultiCast/UniCast, MultiCol, UniCol]

#### Other
- OS: Android support

### Additional Notes

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. Frame rate is 30 fps (59.94 Hz only), 25 fps (50 Hz only)
4. When using a PoE+ Hub:
   - LAN cable*: Category 5 or more (max. 100 m [328 ft])
   - When a hub is not used:
     - LAN cable*: Category 5 or more (max. 100 m [328 ft])
   - LAN cable*: Category 6 or more (max. 100 m [328 ft])
5. When using a PoE+ Hub:
   - 10BASE-T or 100BASE-TX port x 1
   - 1000BASE-T port x 1
6. Power requirements: DC 12 V (supplied AC adapter)
7. For the latest information on supported D/SD browser, please refer to the “service and support” on the Panasonic website (https://pro-apxpanasonic.cn/).
8. *CD-ROM drive (for using the Operating Instructions and various software): Adventurer® Reader (for viewing the Operating Instructions on the CD-ROM)
9. *1: Use of STP (shielded twisted pair) cable is recommended.
10. *2: When the image resolution is “3840x2160”, “640x360” or “320x180”, 60fps or 50fps cannot be selected for the frame rate.
11. *3: When the image resolution is “3840x2160”, “640x360” or “320x180”, 60fps or 50fps cannot be selected for the frame rate.
12. *4: When using a PoE+ Hub:
   - LAN cable*: Category 5 or more (max. 100 m [328 ft])
   - When a hub is not used:
     - LAN cable*: Category 5 or more (max. 100 m [328 ft])
   - LAN cable*: Category 6 or more (max. 100 m [328 ft])
13. *5: To ensure safety, the unit must be secured using the mount bracket.
14. *6: Depending on the pan or tilt position, the camera may be reflected in the image.
15. *7: To ensure safety, the unit must be secured using the mount bracket.
16. *8: When using a PoE+ Hub:
   - LAN cable*: Category 5 or more (max. 100 m [328 ft])
   - When a hub is not used:
     - LAN cable*: Category 5 or more (max. 100 m [328 ft])
   - LAN cable*: Category 6 or more (max. 100 m [328 ft])
17. *9: To ensure safety, the unit must be secured using the mount bracket.
18. *10: To ensure more safety, AW-UE70W/K can be secured by using the direct ceiling mount bracket (WV-Q105A).
19. *11: During Auto, 0 dB, 6 dB, 12 dB and 18 dB are available for Auto F.Mix Max Gain setting.
20. *12: It may be necessary to upgrade the version of the controller so that the controller will support the unit.
21. *13: When the image resolution is “3840x2160”, “640x360” or “320x180”, 60fps or 50fps cannot be selected for the frame rate.
22. *14: A cumulative standard for the service and support on the Panasonic website (https://pro-apxpanasonic.cn/).
23. *15: To ensure safety, the unit must be secured using the mount bracket.
24. *16: It is necessary to make sure the user manual is made available for the unit.
25. *17: It is necessary to make sure the user manual is made available for the unit.
26. *18: It is necessary to make sure the user manual is made available for the unit.
27. *19: When the image resolution is “3840x2160”, “640x360” or “320x180”, 60fps or 50fps cannot be selected for the frame rate.
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37. *29: It is necessary to make sure the user manual is made available for the unit.
38. *30: It is necessary to make sure the user manual is made available for the unit.
39. *31: It is necessary to make sure the user manual is made available for the unit.
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

● 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.

PTZ Virtual USB Driver

● 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/>.

Bottom View

Through-hole for cable ø 40 (ø 1-9/16)(reference)

66 (2-19/32)

130 (5-1/8)

(Space for the wires from the rear panel)

66 (2-19/32)

130 (5-1/8)

78 (3-1/16) 65 (2-9/16)

80 (3-5/32) 77 (3-1/32)

90 (3-17/32)

78 (3-1/16) 65 (2-9/16)

80 (3-5/32) 77 (3-1/32)

90 (3-17/32)

Hole for checking the positioning

Hole for mounting the main unit mounting screw

Mount bracket

Holes for mounting the mount bracket: ø 4.5 x 4

* Holes for mounting the mount bracket: ø 4.5 x 4

Hole for installing the WV-Q105A direct ceiling mount bracket

[ø 60 (ø 2-3/8)]

Rear View

For more information, please visit Panasonic web site https://pro-av.panasonic.net/

● Specifications are subject to change without notice.

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

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