Panasonic’s 4K 60p/50p*1 12G-SDI Supported PTZ Camera the Industry's First*2

**AW-UE150W** [White Model]  
**AW-UE150K** [Black Model]  
4K Integrated Camera  
**AW-RP150GJ**  
Remote Camera Controller

*1: Actual output format is UHD (3840 x 2160) 59.94p/50p.  
4K 60p/50p*1 Output, High-Magnification Zoom and Wide-Angle Shooting for Flexible Video Production

The next-generation PTZ camera supports high-quality video production in stadium, lecture halls, churches and other venues. Smooth and high-quality 4K 60p/50p*1, high-magnification zoom and a wide shooting angle expand the range of the PTZ camera's applications. The camera is equipped with a variety of interfaces and supports simultaneous 4K/HD operation which allows for versatility in current and future production systems.

AW-UE150W
4K Integrated Camera
(White Model)

AW-UE150K
4K Integrated Camera
(Black Model)

High-Quality 4K 60p/50p*1 Shooting
3840 x 2160 4K output and 59.94p/50p*1 shooting achieve extremely smooth video, even in live sports and other environments containing rapid movement.

Output format

<table>
<thead>
<tr>
<th>4K</th>
<th>2160/59.94p, 2160/50p, 2160/29.97p<em>2, 2160/25p</em>3, 2160/24p<em>4, 2160/23.98p</em>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD</td>
<td>1080/59.94p, 1080/50p, 1080/29.97p<em>2, 1080/25p</em>3, 1080/24p<em>4, 1080/23.98p</em>5</td>
</tr>
<tr>
<td></td>
<td>720/59.94p, 720/50p</td>
</tr>
</tbody>
</table>

* Native output.

1.0-type MOS Sensor Mounted
The large 1.0-type MOS sensor enables high sensitivity shooting with low noise. The sensor boasts a light-capturing area that is approximately four times larger than that of the 1/2.3-type sensor to guarantee a wide dynamic range.

Optical 20x Zoom / Industry’s First* 75.1° Horizontal Wide-Angle Shooting
Adding “i zoom” to our optical 20x zoom, maintains high resolution while enabling ultra-high resolution 32x zoom in HD mode and 24x zoom in 4K mode. This enables distant subjects to be captured clearly. Furthermore, 75.1° horizontal wide-angle shooting enables capture of the entire area, even when installation space is limited.

HDR (HLG) Support*4
The camera supports HDR (High Dynamic Range) to prevent blown-out highlights and blocked-up shadows and enable picture quality close to that of the naked eye. Conforms to BT.2020.

Horizontal 75.1° Shooting Range

* Images are simulated.

HDR Mode OFF
HDR Mode ON

* Images are simulated.
Optical Image Stabilizer (OIS) Loaded

Vibrations of the mounted surface caused by doors opening and closing, audio systems and other installed equipment are automatically corrected to ensure stable shooting.

Night Mode Support

Equipped with Night Mode for infrared shooting. The use of IR rays in low-light situations enables shooting in situations that would normally be difficult, such as when capturing wildlife (image output is black and white).

Incredible Pan and Tilt Performance

Pan and tilt operate from a minimum speed of 0.08°/s to a maximum of 180°/s in high-speed mode. This is approximately 3 times the speed of our current product*5 for rapid capture of the intended target. Furthermore, a low noise level of NC35 or less has been ensured when operating in normal mode, which is perfect for shooting in quiet environments*6.

Cropping Function

Images shot in 4K can be output in their entirety while simultaneously cropping parts of those images. The cropping position can be specified from a maximum of 3 locations to enable simple operation from the Remote Camera Controller AW-RP150GJ, a web browser or other operations screen.

Multiple Interfaces Supported

A wide range of outputs are supported: 12G-SDI, 3G-SDI, HDMI, IP and even Optical Fiber output. The addition of 4K/HD simultaneous output guarantees the right output for the operation at hand. 4K video can be down converted to HD directly within the camera.
AW-RP150GJ Connection for Large-Scale Production Systems

IP connection from the Remote Camera Controller AW-RP150GJ through a HUB (switching hub) enables control of up to 200 AW-UE150W/K units. Furthermore, a single AW-UE150W/K unit can be controlled from up to 5 AW-RP150GJ units.

Direct Broadcast via RTMP (Real-Time Messaging Protocol)

RTMP (Real-Time Messaging Protocol) is supported to enable direct upload of video to live-streaming services such as YouTube Live and Facebook Live. This means a live stream can be broadcast directly from the camera.

NDI | HX Compatibility for Excellent Video Streaming Quality

The AW-UE150W/K can be upgraded to an NDI | HX compatible model if purchasing a license. Highly efficient NDI | HX compatibility enables high-quality video to be encoded and transmitted in real-time and input signals to be directly sent to a switcher (AV-HLC100) without the need for an IP decoder.

WEB UI Improved

Camera IP image output, settings and control can be performed using a web browser on a computer connected via an IP network. In addition to PCs and Macs, iPads, iPhones*, Androids and other mobile devices can be used for operation, and this pursuit of easy-to-use interfaces has enabled smooth camera control from remote locations.

*For supported browsers, see specifications on page 10.
*1: Planned for future support.

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System Configuration

* Contact your local Panasonic reseller for further information.
* NDI/HX, a technology of NewTek, Inc.
Optional Products

PC Software for Remote Camera Support

Supporting Lecture Capture with Auto Tracking function

Auto Tracking Software Key

<table>
<thead>
<tr>
<th>Stand-Alone and Web App Versions</th>
<th>Server Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>AW-SF100*1</td>
<td></td>
</tr>
<tr>
<td>AW-SF200*1</td>
<td></td>
</tr>
<tr>
<td>2 Additional Licenses AW-SF202</td>
<td></td>
</tr>
<tr>
<td>3 Additional Licenses AW-SF203</td>
<td></td>
</tr>
</tbody>
</table>

AW-SF100 allows a single PTZ camera to be controlled on either a stand-alone or web application version. AW-SF200 operates on a server.

AW-SF200 Main View

- Motion detection and face detection technologies using video streaming from camera achieve smooth auto tracking regardless of where the person is facing. Installation of sensors and other devices are not necessary.
- GUI designed for intuitive operation.
- Operation with IP connection enables installation and control of cameras in remote classrooms.
- Connection with the AW-UE150W/K is planned for future support.

Control multiple PTZ Cameras from PC

PTZ Control Center

- Video can be checked during centralized management of multiple cameras.
- Camera control enabled via GUI for image quality adjustment, pan, tilt, zoom, etc. Touch panel operations are supported.
- Clicking the preset button attached to thumbnails enables simple recall of presets.
- Pan, tilt, zoom and other operations can also be controlled using game controllers made by other companies.

Remote Camera Controller

AW-RP150GJ

Remote Operation Panel (ROP)

AK-HRP1000GJ*4
AK-HRP1005GJ*4

Remote Camera Controller

AW-RP120G*4*5
AW-RP50*4*5

Control Assist Camera

AW-HEA10W/K*4

Wireless remote control

AW-RM50G

Software that converts PTZ camera on your network into Super Web cam

PTZ Virtual USB Driver

- Remote cameras on the network can be used as USB cameras for simple execution of web meetings with high image quality.
- Camera control enabled via GUI for image quality adjustment, pan, tilt, zoom, etc. Touch panel operations are supported.
- Up to 5 cameras can be registered.
- Automatic detection of connected cameras and network settings enabled.

As of November, 2018

Optional Products

Remote Camera Controller

AW-RP150GJ

Remote Operation Panel (ROP)

AK-HRP1000GJ*4
AK-HRP1005GJ*4

Remote Camera Controller

AW-RP120G*4*5
AW-RP50*4*5

Control Assist Camera

AW-HEA10W/K*4

Wireless remote control

AW-RM50G

*4: Connection with the AW-UE150W/K is planned for future support. Contact your sales representative for further information on when support will be available for this feature. Use may require a software version update.

*5: Some operation functions are restricted during connection with the AW-UE150W/K.

Compatible Third-Party Equipment

Finisar Corporation

8G Fibre Channel (8GFC)
10km SFP+ Optical Transceiver
FTLF1428P3BNV

16G Fibre Channel (16GFC)
10km SFP+ Optical Transceiver
FTLF1429P3BNV

AJA Video Systems

1-Channel Single-Mode LC Fiber to 12G-SDI Receiver
FiDO-R-12G

Blackmagic Design

Teranex Mini Optical to HDMI 12G

PLANET Technology Corp.

Layer 3 8-Port 10/100/1000T 802.3bt PoE + 2-Port 10/100/1000T + 2-Port 10G SFP+ Managed Switch
GS-5220-8UP2T2X

Third-Party Inquiries

- Finisar Corporation: https://www.finisar.com/how-buy
- AJA Video Systems, Inc.: TEL: +1-630-274-2048 MAIL: Sales@aja.com https://www.aja.com/where-to-buy

* For further information on the optional software, please see "Software Download" on the Panasonic website <https://pro-av.panasonic.net/>.
A ZOOM/FOCUS rocker mounted on the joystick manages pan and tilt operations for zoom and focus control and intuitive single-handed operation. The built-in touch display allows for easy and quick operation of all essential camera functions.

**Rear View**

PoE+* support enables power supply via a LAN cable. Additionally, a dual system GPIO (general purpose input/output) terminal is equipped as standard.

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* Abbreviation of Power over Ethernet Plus.
**Touch Panel GUI for High-Quality Operability and Visibility**

The touch panel GUI monitor supports camera image display during shooting as well as a variety of operations. The panel is equipped with buttons that are frequently used, with menu and camera switching operations, indicators and other functions consolidated in the touch panel GUI.

**Touch Focus Function Equipped**

The focus is quickly aligned to the area touched by tapping the screen. In addition, the Focus in Red display assists with aligning focus by framing the part that is in-focus in red.

**Camera Settings Copied to Multiple Cameras**

Scene files, system settings files and other camera settings can be saved on the AW-RP150GJ SD card. These settings can then be copied to multiple cameras via the SD card. This massively reduces on-location setup time when shooting at events with large numbers of cameras.

**Smooth Creation of Cropped Images**

The cropping function loaded on the AW-UE150W/K can be controlled from the AW-RP150GJ. Images output from the AW-UE150W/K to the monitor can be cropped in three different locations displayed with colored frames (yellow/green/magenta), and fine-tuned with the joystick as you watch. Required images can be cropped precisely and simply.

**Preset Memory for Simple Camera Control**

Registration of the camera angle and other remote camera settings allows them to be easily recalled from the touch panel GUI monitor. The movement speed for play back the preset memory can be set by the specified speed or time.

**Tracing Memory for Memory and Recall of Camera Operations**

The tracing memory function records a series of operation performed for the remote camera. Up to 5 minutes for 10 operations can be memorized for a single camera, and that trajectory can then be reproduced.

**Multiple-Camera Connection Supported for Large-Scale Systems**

IP connection via a switching hub can be used to control up to 200 remote cameras. Up to 5 remote cameras can be controlled in a serial connection.

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**Remote Camera Controller AW-RP150GJ-Compatible Panasonic Remote Cameras**

As of November, 2018

**For indoor use**

4K 60p/50p output, 75.1° horizontal wide-angle output shooting

4K Integrated Camera
AW-UE150W/K

**For indoor use**

IP transfer output, 1/2.86-type 3MOS sensor-equipped

HD Integrated Camera
AW-HE130W/K*2

HD Integrated Camera
AW-HN130W/K*2

**For indoor use**

HD Integrated Camera
AW-HE40SW/SK [SDI Model]*2

HD Integrated Camera
AW-HE40HW/HK [HDMI Model]*2

NDI | HK Compatible Entry-level
HD Integrated Camera
AW-HN38HW/HK*2

**For indoor use**

NDI | HK Compatible Premium
HD Integrated Camera
AW-HN40HW/HK*2

**For indoor use**

NDI | HK Compatible
4K Integrated Camera
AW-UN70W/K*2

**For indoor use**

NDI | HK Compatible
4K Integrated Camera
AW-UE70W/K*2

**For indoor use**

HDMI, USB and IP transfer for 4K image output

4K Integrated Camera
AW-UE150W/K

**For indoor use**

High portability and workability

HD Integrated Camera
AW-HE40SW/SK [SDI Model]*2

HD Integrated Camera
AW-HE40HW/HK [HDMI Model]*2

NDI | HK Compatible HD Integrated Camera
AW-HN40HW/HK*2

**For indoor use**

High sensitivity, S/N ratio and resolution with IP65 waterproofing and dustproofing

Full-HD Outdoor Integrated Camera
AW-HR140*2

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*2: Connection with the AW-RP150GJ is planned for future support. Contact your sales representative for further information on when support will be available for this feature. Use may require a software version update.
Application Examples

Application 01: 4K Studio

Studio shooting of smooth, high-quality 4K 60p/50p images

The AW-UE150W/K is capable of 4K 60p/50p output for high-quality remote shooting in studio operations where high image quality is required. A large tally lamp has been equipped to make on-air cameras easily identifiable, even from far away.

Application 02: Live Streaming

RTMP and NDI|HX support enable streaming workflow to be optimized to the situation

Video being shot from a single camera can be uploaded directly from the AW-UE150W/K to a live-streaming service via RTMP. For multi-camera setups, use NDI|HX to connect to the Live Production Center AV-HLC100. Multiple AW-UE150W/K units can be controlled from the AV-HLC100 for smooth live streaming.

Application 03: Halls

High-magnification zoom and wide-angle shooting ensure targets are captured clearly in large venues

The large 1.0-type MOS sensor enables high-sensitivity shooting with little noise in halls and other dark locations. The optical 20x zoom further ensures that even far-away targets shot in large venues are captured clearly. 75.1° horizontal wide-angle shooting allows incredible flexibility in shooting location while still being able to capture the entire shot.

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*1: Actual output format is UHD (3840 x 2160) 59.94p/50p.
*2: Contact your Panasonic sales representative for further details.
*3: Connection with the AW-UE150W/K is planned for future support. Contact your sales representative for further information on when support will be available for this feature. Use may require a software version update.
*4: AW-UE150W/K not supported.
**Dimensions**

**AW-UE150W/K Dimensions**

![Diagram of AW-UE150W/K Dimensions]

**AW-UE150W/K Bottom View**

![Diagram of AW-UE150W/K Bottom View]

**AW-RP150GJ Dimensions**

![Diagram of AW-RP150GJ Dimensions]

Unit: mm (inches)

Unit: mm (inches)

The front panel of the unit on this side
Specifications

AW-UE150W/K

<GENERAL>
- Power Requirements: 12 V DC (10.8 V to 13.2 V)
- PoE++: IEEE802.3bt standard: DC 42 V to 57 V (Camera Input)
- Current Consumption: 4.0 A (XLR IN connector), 1.2 A (PoE++ power supply)
- Ambient Operating Temperature: 0 °C to 40 °C (32 °F to 104 °F)
- Ambient Operating Humidity: 20 % to 90 % (no condensation)
- Storage Temperature: -20 °C to 50 °C (-4 °F to 122 °F)

<Camera Unit>
- Lens: Motorized Optical 20x zoom, F2.8 to F4.5
- Digital Zoom: 10x
- Motorized Optical 20x zoom, F2.8 to F4.5
- i.Zoom: UHD 24x, FHD 32x
- Optical Filter: Through, 1/4, 1/16, 1/64, IR through (IR through is used as "Night mode")
- Angle of View Range: Horizontal angle of view: 75.1° (wide) to 4.0° (tele)
- Zoom:
  - Optical zoom: 20x
  - iZoom: UHD 24x, HD 32x
  - Digital zoom: 10x
- Conventional Lens: Not supported
- Focus Distance: Entire zooming range: 1000 mm (3.3 ft)
- Focus:
  - Switching between auto and manual
- Focus Distance:
  - Entire zooming range: 1000 mm (3.3 ft)
  - Wide end: 100 mm (0.33 ft)

<Color Separation Optical System>
- 1MOS

<Controller Supported>
- AW-RI150EU

<Camera Unit>
- Imaging Sensors: 1-type 4K MOS×1
- Imaging Sensors: 1-type 4K MOS
- Zoom:
  - Optical zoom: 20x
  - Digital zoom: 10x

<INPUT>
- Input Connector:
  - DC 12 V IN, GND IN (DC 12 V)
  - BBS (Black Burst Sync), tri-level sync supported

<OUTPUT>
- Output Connector:
  - HDMI 2.0 standard
  - HDMI 2.0: 4K 60 Hz / 50 Hz

<Supported operating systems and web browsers>
- Windows
  - Microsoft® Windows® 7, 10
  - Windows® Internet Explorer® 11 (64-bit/32-bit)
- Mac
  - Mac OS 10.13,  Mac OS 10.12,  Mac OS 10.11
  - Safari 11,  Google Chrome
- Linux
  - Ubuntu 16.04 to 18.04
- Smartphone / Tablet
  - Google Chrome
  - Microsoft Edge
  - Windows® Internet Explorer® 11 (64-bit/32-bit)
- Supported browsers:
  - Google Chrome
  - Microsoft Edge

<IP Streaming>
- Image Streaming Mode: JPEG (MJPEG), H.264, H.265
- Image Resolution: 3840×2160, 1920×1080, 1280×720, 640×360, 320×180
- Image Transmission Setting (JPEG): Frame Rate: Maximum 30 fps
- Image Transmission Setting (H.264):
  - Unicast port (AUTO)
  - Multicast port

<Supported operating systems and web browsers>
- Windows
  - Microsoft® Windows® 7, 10
  - Windows® Internet Explorer® 11 (64-bit/32-bit)
  - Microsoft Edge
  - Google Chrome
- Mac
  - Mac OS 10.13,  Mac OS 10.12,  Mac OS 10.11
  - Safari 11,  Google Chrome
- Smartphone / Tablet
  - iOS 11.4
  - Google Chrome
**AW-UE150W/K**

- IPv6 : TCP / IP, UDP / IP, HTTP, HTTPS, DNS, NTP, DHCPv6, RTP
- XLR 4pin
- 100BASE

**<Input/Output Connectors>**

- **Input:** DC 12 V IN
- **Output:** ACTIVE THRU OUT, IP CONT

**<Other Functions>**

- NDI support**: NDI | HX
- Tally LED display color: red / green

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**AW-RP150GJ**

**<GENERAL>**

- Power Requirements: 12 V DC (10.8 V to 13.2 V)
- PoE+: IEEE802.3at standard: DC 48 V to 57 V (Camera Input)
- Current Consumption: 1.0 A (Connector Input)
- Ambient Operating Temperature: 0°C to 40°C (32°F to 104°F)
- Allowable Humidity: 20% to 90% (no condensation)
- Storage Temperature: –20°C to 50°C (–4°F to 122°F)
- Weight: Approx. 3.2 kg (7.05 lb)
- Dimensions (W x H x D): 342 mm x 178 mm x 245 mm (13-15/32 inches x 7 inches x 9-21/32 inches)

**<Connection Specifications>**

- No. of Connectable Cameras: 200 (IP), 5 (RS422)
- No. of Camera Groups: 20 (10 units per 1 group)

**<Memory>**

- SD Memory Card Slot: SDHC / SDXC Memory Card Slot x 1
- Flash Memory: NAND 8 GB

**<Other Functions>**

- No. of User Assignable Buttons: 6 + up to 10 on the LCD menu
- Pan / Tilt Speed Adjustment: 7 levels
- Tally LED Display Color: green / red

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*1: AW-RP150GJ, AW-RP150GJ, AW-HRP100GJ, and KH-HRP100GJ connection with the AW-UE150W/K is planned for future support. Contact your sales representative for further information on when support will be available for this feature. Use may require a software version update. *2: Level-A support only.

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**<Input/Output Connectors>**

- **Input:** DC 12 V IN (10.8 V to 13.2 V)
- **Output:** ACTIVE THRU OUT

**<Other Functions>**

- NDI support**: NDI | HX
- Tally LED display color: red / green

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**<OTHER FUNCTION>**

- SD Memory Card Slot: SDHC / SDXC Memory Card Slot x 1

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