# Panasonic CONNECT

**AW-UE160W** [Pearl White]
**AW-UE160K** [Black]
4K Integrated Camera  `For Indoor Use`

# 4K PTZ Camera for an era of enhanced creativity and the pursuit of visual expression.

## Uncompromising shooting performance and operability.

In addition to the high sensitivity F14/2000 lx and the latest-generation image processing, the AW-UE160 features a phase detection auto focus (PDAF). The new PTZ has a variety of functions that enable you to carry out high-precision video production.

## Realize next-generation video production with various shooting methods and functions.

The AW-UE160 supports return input and high-speed output, which is vital for building a combined camera system. This camera is the first to support the ST 2110 standard* and JPEG XS* and 5G mobile router (USB tethering compatible) - the standard for IP transmission in the broadcasting industry.

* Activation with the AW-SFU60 is required.

## Ease of use and versatility reduces stress of shooting on-site.

Support for a variety of I/Fs and protocols reduces the burden of introducing the camera into existing systems. Updated scene files, color matrix control and Panasonic's free software and Remote Operation Panel (ROP) for batch management of multiple cameras makes mixed operation with system cameras even easier.

4K PROFESSIONAL HDR · JPEG XS · NDI® & NDI®|HX Built-in · SRT ALLIANCE SECURE RELIABLE TRANSPORT · HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE · ST 2110**

* Firmware update may be required.
 JPEG logo by Masahito TAKIZAWA is licensed under Creative Commons Attribution-NoDerivatives 4.0 International Public License with disclaimer of warranties. The license can be found at https://jpeg.org/contact.html
** Separately sold software key AW-SFU60 (released at same time as AW-UE160) is required.

# The latest features for next-generation video production.

## High sensitivity F14/2000 lx*

Produce high-quality images - even in dark conditions - with system camera-level high sensitivity.

* When use "Low Light" mode. "Normal" mode is F11/2,000lx.

## Newly developed image processing engine

With the latest processing engine, improved S/N is realized processing of high pixel video data.

## New Image Phase Detection Auto Focus (PDAF)

The camera detects phase differences and focuses on moving subjects with high speed and precision.

## Compact body with impressive PTZ mechanisms

Silent operation* and high static accuracy add to your high-quality productions.

* NC35 or less (NC25 or less when pan/tilt is stationary)

## 2x high-speed shooting

Smooth and beautiful slow-motion video can be captured to focus on key elements, such as sports and Esports moments.

## Other features

- Cropping (+ Zoom) function
- Moiré reduction (with optical low-pass filter)
- HDR/SDR (HLG/BT.2020 compatible, SDR/BT.709 compatible)
- Hybrid image stabilization with 2-axis O.I.S. and roll direction correction (E.I.S.)
- Improvement of synchronized pan, tilt, and zoom during preset movement
- Auto Iris window
- Updated scene file functions
- Renewed color matrix control
- Horizontal level gauge display function, waveform display function, etc.

## Improved scalability and convenience

Supports ST 2110 standard* and JPEG XS* and various I/Fs and protocols. Simultaneous output from multiple terminals (simultaneous operation).

*Activation with the AW-SFU60 is required.

I/F: Fiber (SFP+), 12G-SDI, 2 x 3G-SDI, HDMI, 2 x XLR jacks, USB 3.0 (5G mobile router with USB tethering support), G/L IN
Protocols: SMPTE ST 2110*1, NDI ® *2*3, NDI®|HX*2*3, SRT, FreeD, RTMP/RTMPS, etc.
*1 Activation with the AW-SFU60 is required.
*2 NDI® is a new live video production workflow support protocol developed by NewTek, Inc.
*3 NDI® is a registered trademark of NewTek, Inc. in the United States and other countries.

## Tally lamps equipped on the front and rear

Quickly check the status of the camera from any direction.Tally lamps can be lit in red, green and yellow.

## Return input function*

Use as a return video or prompter so performers can check the video/broadcast on the spot.
* Available only when operating SMPTE ST 2110.

## AW-UE160W/K  Specifications*

* This specification is only a partial list, please check our website for details.

| Comprehensive | |
|---|---|
| Power Requirements | 12VDC±10% (10.8V to 13.2V) |
| PoE++ | IEEE802.3bt standard: DC 42V to 57V (Software authentication (LLDP) is supported). |
| Current Consumption | 5.0A (XLR Input), 1.5A (PoE++ power supply) |
| Mass | Approx. 4.6kg (10.14lbs) (excluding mount bracket) |
| Dimensions (W x H x D) | 213.0 mm × 277.0 mm × 240.0 mm(8.39 inches × 10.91 inches × 9.45 inches) [excluding protrusions, ceiling mount bracket] |

| Camera Unit | | |
|---|---|---|
| Image Sensors | | 1-type (1") 4K MOS×1 (Effective size) |
| Effective Pixels | | Approx.9,620,000 pixels |
| Lens | | Motorized 20x optical zoom F2.8 to F4.5 f=8.8 mm (11/32 inches) to 176.0 mm (6-15/16 inches), 35 mm (1-3/8 inches) equivalent: 24.5 mm (31/32 inches) to 490.0 mm (19-9/32 inches) |
| Zoom Magnification | | • Optical zoom: 20x<br>• i.Zoom: UHD 24x, FHD 32x<br>• Digital extender zoom: 1.4x, 2x |
| Angle of View Range | | Horizontal: 75.1°(wide) - 4.0°(tele)<br>Vertical: 46.7°(wide) - 2.3°(tele)<br>Diagonal: 82.8°(wide) - 4.6°(tele) |
| Horizontal Resolution | | 1,600 TV Lines Typ (center area, UHD Mode, Wide) |
| Output Format (UHD/FHD SDI and HDMI, Fiber (video only), ST 2110*1) | 4K*2 | 2160/60p, 2160/59.94p, 2160/50p, 2160/29.97p (Native), 2160/25p (Native), 2160/24p(Native), 2160/23.98p (Native) |
| | HD | 1080/119.88p (SDI and HDMI only)*3, 1080/100p (SDI and HDMI only)*3, 1080/60p, 1080/59.94p, 1080/50p, 1080/29.97p (Native), 1080/25p (Native), 1080/24p (Native), 1080/23.98 p(Native), 1080/59.94i, 1080/50i, 720/59.94p, 720/50p |

| Input terminal | |
|---|---|
| G/L IN | G/L IN (BNC)*4 |
| AUDIO INPUT1/2 | XLR (2ch) or Mic/Line input compatible (SDI/HDMI/IP) AAC compatible (IP only) 3-pin XLR female connectors, 2ch, balanced input |

| Output | |
|---|---|
| HDMI | HDMI 2.0 connector, 4:2:2/10bit*5 |
| 12G SDI OUT*6 | SMPTE2082-1, SMPTE424M/SMPTE292M/75Ω(BNC×1) |
| 3G SDI OUT1/2/PM*6 | SMPTE424M/SMPTE292M/75Ω(BNC×1) |
| SFP+ | SFP+ compliant (Single Fiber)*7 |
| USB | USB3.0 HOST(5G mobile router (USB tethering support))*8 |

| Input/output terminal | |
|---|---|
| LAN | LAN connector for IP control (RJ-45) |
| RS-422 | CONTROL IN RS422A (RJ-45) |
| SFP+(ST 2110*1)*8 | Compatible protocol: -ST 2110-10/-20/-21/-30, -PTP ST2059-2, -NMOS IS-04/IS-05<br>Number of outputs: [Uncompressed] Video x3 (Main line, Crop, Monitor), Audio x2<br>[JPEG XS] Video x1 (Main line, Crop), Audio x2<br>Number of inputs: Video x1 (RETURN)<br>Video format: FHD, UHD |

| JPEG (MJPEG), H.264, H.265 | |
|---|---|
| Image resolution | 3840x2160, 1920x1080, 1280x720, 640x360 |

| NDI|HX Version 2、High Bandwidth NDI | |
|---|---|
| Image resolution | 3840x2160, 1920x1080, 1280x720 |

*1 Separately sold software key AW-SFU60G (released at same time as AW-UE160) is required. *2 1080/119.88p and 1080/100p use two 3G/SDI OUTPUT1/2 systems. No output from 12G/SDI. *3 BBS(Black Burst Sync)and 3-value synchronization compatible. *4 HDCP and Viera Link are not supported. *5 Compatible with Level-A/Level-B. *6 Optical signal input not supported. *7 Compatible with recommended products only. Please ask your local sales company. *8 Please refer to the operating instruction manual. *9 Follows the system format.

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