



4K 50/60p PTZ Camera supporting Full-Bandwidth NDI®*1, SRT and FreeD protocols

AW-UE80

The AW-UE80W/K is a PTZ camera suitable for capturing the natural facial expressions of actors/performers and for recording events without spoiling the ambiance. The dome-shaped design minimizes “the feeling of being recorded on video” while the new direct-drive motor produces a very quiet operating sound so it won’t disturb the production activities or spoil the ambiance. The camera offers high-image-quality 4K/60p resolution, wide 74.1° angle, and optical zoom with up to 24x magnification to achieve superb video image quality. The AW-UE80W/K also offers excellent stability and security during video streaming so it can be used for any type of video production. From the production of a reality show to the recording of an internal business or educational event, the top-of-the-line standard model, AW-UE80W/K, can be used in a diversity of applications.

Key Features

Supports a wide variety of IP transmission protocols, including NDI®*1 High Bandwidth, NDI®*1 HX, and SRT*2

Supports 4K 50p/60p shooting

Includes a wide-angle lens with a 74.1° field of view and 24x optical zoom

Supports FreeD for building AR/VR systems

New Direct Drive System for improved responsiveness and quietness





AW-UE80

<https://oc.connect.panasonic.com/nz/en/aw-ue80>

General

| | |
|--------------------------------------|---|
| Power Requirements | 12 V DC (10.8 V to 13.2 V) (Supplied AC adapter) |
| PoE++ | IEEE802.3bt compliant: DC42 to 57 V (Camera Input)(Software authentication (LLDP) is supported) |
| Current Consumption | 3.0 A (Supplied AC adaptor), 1.0 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 to 50°C (-4 °F to 122 °F) |
| Mass | Approx. 2.0 kg (4.41 lbs) (excluding ceiling mounting bracket), Approx. 2.25 kg (4.96 lbs) (including ceiling mounting bracket) |
| Dimensions (W x H x D) (mm) | 170.0 mm x 211.0 mm x 171.0 mm |
| Dimensions (W x H x D) (inch) | 6.693 inches x 8.307 inches x 6.732 inches |
| Finish | AW-UE80W: White AW-UE80K: Black |
| Controller Supported | AW-RP150GJ, AW-RP60GJ, AW-RM50AG, AK-HRP1000*1, 2, AK-HRP1005*1, 2, AK-HRP1015*2, AK-HRP250*2 |

Camera Unit

| | |
|---|---|
| Imaging Sensors | 1/2.5-type MOS×1 |
| Lens | Motorized Optical 24x zoom, F1.8 to F4.0 [f=4.12 mm (5/32 inches) to 98.9 mm (3-29/32 inches); 35 mm (1-3/8 inches) equivalent: 25.0 mm (31/32 inches) to 600.0 mm (23-5/8 inches)] |
| Zoom | • Optical zoom: 24x• i.Zoom UHD 28x, FHD 36x• Digital extender zoom: 1.4x, 2x |
| Conversion Lens | Not supported |
| Angle of View Range | Horizontal angle of view: 74.1° (wide) to 3.3° (tele) Vertical angle of view: 46.0° (wide) to 1.9° (tele) Diagonal angle of view: 81.8° (wide) to 3.8° (tele) |
| Optical Filter | Through, 1/4, 1/16, 1/64, IR through (IR through is used as "night mode") |
| Focus | Switching between auto and manual |
| Focus Distance | Entire zooming range: 1200 mm (3.9 ft) Wide end: 100 mm (0.33 ft) |
| Color Separation Optical System | 1 MOS |
| Minimum Illumination | 3 lx (F1.8, 59.94p, 50IRE, 42 dB, without accumulation) |
| Horizontal Resolution | 1,500 TV Typ (Center area, UHD mode, wide) 1,000 TV Typ (Center area, FHD mode, wide) |
| Gain Selection | Auto, 0 dB to 36 dB*3 (Super Gain function equipped : 37 dB to 42 dB) |
| Frame Mix | Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB*4 |
| Electronic Shutter Speed | |
| Electronic Shutter Speed 59.94p/59.94i | 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 |
| Electronic Shutter Speed 29.97p | 1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 |
| Electronic Shutter Speed 23.98p/24p | 1/24, 1/48, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 |
| Electronic Shutter Speed 50p/50i | 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 |
| Electronic Shutter Speed 25p | 1/25, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000 |
| Syncro Scan | |
| Syncro Scan 59.94p/59.94i | 60.0 Hz to 7200 Hz |
| Syncro Scan 29.97p | 30.0 Hz to 7200 Hz |
| Syncro Scan 23.98p/24p | 24.0 Hz to 7200 Hz |
| Syncro Scan 50p/50i | 50.0 Hz to 7200 Hz |
| Syncro Scan 25p | 25.0 Hz to 7200 Hz |
| Gamma | HD / Normal / Cinema1 / Cinema2 / Still Like |
| White Balance | • ATW: 3200 K, 5600 K (ATW Speed 3-stage variables.)• AWB: AWB-A / AWB-B• VAR (selectable between 2000 K and 15000 K by designating a value) |
| Chroma Amount Variability | OFF, -99 % to 99 % |
| Scene File | |
| Synchronization System | Internal/External synchronization (BBS/Tri-level sync) |
| Input | |
| Input Connectors | DC 12 V IN, G/L IN(BNC)BBS (Black Burst Sync), tri-level sync supported) |
| Output | |
| Output Format | |
| Output Format SDI HD | 1080/59.94p, 50p, 1080/59.94i, 50i, 1080/29.97p (Native), 25p (Native), 23.98p (over59.94i), 1080/29.97psF, 25psF, 23.98psF, 1080/24p (Just), 23.98p (Native), 720/59.94p, 50p |
| Output Format HDMI 4K | 2160/59.94p, 2160/50p, 2160/29.97p (Native), 2160/25p (Native), 2160/24p (Just), 2160/23.98p (Native) |
| Output Format HDMI HD | 1080/59.94p, 50p, 1080/59.94i, 50i, 1080/29.97p (Native), 25p (Native), 23.98p (over59.94p), 1080/24p (Just), 23.98p (Native), 720/59.94p, 50p |
| Video Output | |
| Video Output HDMI | HDMI 2.0 connector; 4:2:2/10bit• HDCP is not supported. • Viera Link is not supported |
| Video Output 3G-SDI OUT | SMPTE292M/424M/ 75 Ω(BNC×1)• Level-A/Level-B supported |
| Input/Output | |
| Input/Output Connector | |

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|---|--|
| Input/Output Connector LAN | LAN terminal for IP control (RJ-45) |
| Input/Output Connector RS-422 | CONTROL IN RS422A(RJ-45) |
| MIC/Line Input | AAC compatibility (compatible with IP only)Φ3.5 mm stereo mini jack• During MIC inputInput level: -40 dBV (0 dB=1 V/Pa, 1 kHz)Supply voltage: 2.5 V±0.5 V (plug-in power compatible)*• Input impedance: Approx. 2 kΩ (when plug-in power is turned ON)Approx. 20 kΩ (when plug-in power is turned OFF)*• During LINE inputInput level: -10 dBVInput impedance: Approx. 3 kΩ• Input volume variable range: -36 dB to 12 dB (3 dB step)* Embedded audio output level: -12 dBFS• Sampling frequency: 48 kHz• Quantization bit rate: 24 bit (SDI, HDMI), 16 bit (IP) |
| Pan Tilt Head Unit | |
| Camera/Pan-Tilt Head Control | |
| IP Connecting Cable | • If you have a PoE++ ethernet hubLAN cable*5, 6 (category 5e or above, straight cable) Max 100 m (328 ft)• If you don't have a PoE++ ethernet hubLAN cable*5, 6 (category 5e or above, straight cable) Max 100 m (328 ft) |
| AW Protocol Connecting Cable | LAN cable*5 (category 5e or above, straight cable) Max 1000 m (3280 ft) |
| Installation Method | Stand-alone (Desktop) or suspended (Hanging)*7 |
| Pan/Tilt Operation Speed | Speed range: 0.08°/s to 60°/s (Normal mode)*8 • 3 speed modes installedNormal:60°/s, Fast1:90°/s, Fast2:180°/s |
| Panning Range | ±175° |
| Tilting Range | -30°to 90°*9 |
| Quietness | NC25 or less |
| Image Streaming Mode | JPEG(MJPEG), H.264, H.265, NDI®*1 HX version 2* 11, 12, 13 (H.264), NDI®*1 High Bandwidth |
| Supported operating systems and web browsers | |
| Windows | Windows 10 Windows® Internet Explorer® 11 (32 bit / 64 bit) Microsoft Edge Google Chrome |
| Mac | Mac OS v11.0.1 / Safari 14.01 Mac OS v11.0.1 / Google Chrome Mac OS v10.15 / Google Chrome Mac OS v10.14 / Google Chrome |
| iPhone / iPad | iOS Safari iPadOS |
| Android | Android OS Google Chrome |
| IP Streaming | |
| Image Resolution | 1920×1080, 1280×720, 640×360, 320×180 |
| Image Transmission setting (JPEG) | Frame rate: Maximum 30fpsImage quality (Fine / Normal) |
| Image Transmission Setting (H.264) | Transmission Type: Unicast port (AUTO), Unicast port (MANUAL), Multicast port Transmission Priority: Constant bit rate, Frame rate, Best effort Frame Rate: [60 Hz] 5fps / 15fps / 30fps / 60fps, [50 Hz] 5fps / 12.5fps / 25fps / 50fps Max Bit Rate: 512kbps / 768kbps / 1024kbps / 1536kbps / 2048kbps / 3072kbps / 4096kbps / 6144kbps / 8192kbps / 10240kbps / 12288kbps / 14336kbps / 16384kbps / 20480kbps / 24576kbps |
| Image Transmission Setting (H.265) | Transmission Type: Unicast port (AUTO), Unicast port (MANUAL), Multicast port Transmission Priority: Constant bit rate, Frame rate, Best effort Frame Rate: [60 Hz] 30fps / 60fps, [50 Hz] 25fps / 50fps Max Bit Rate: 512kbps / 768kbps / 1024kbps / 1536kbps / 2048kbps / 3072kbps / 4096kbps / 6144kbps / 8192kbps / 10240kbps / 12288kbps / 14336kbps / 16384kbps / 20480kbps / 24576kbps |
| Audio Compression Type | AAC-LC, 48 kHz, 16 bit, 2 ch |
| Supported Protocol | |
| Supported protocol IPv6 | TCP/IP, UDP/IP, HTTP, HTTPS, DNS, NTP, DHCPv6, RTSP/RTP, MLD, ICMP, ARP, SRT |
| Supported protocol IPv4 | TCP/IP, UDP/IP, HTTP, HTTPS, RTSP/RTP, MPEG2-TS, DHCP, DNS, DDNS, NTP, IGMP, ICMP, ARP, RTMP, RTMPS, SRT |
| Output Formats | NDI®*1 High Bandwidth : 【HD】 1080/59.94p, 1080/50p, 1080/29.97p, 1080/25p, 1080/24p, 1080/23.98p, 720/59.94p, 720/50p |
| Image Transmission Setting (High Bandwidth NDI®) | Transmission Type: TCP/UDP, Unicast/Multicast Max Bit Rate: 250 Mbps |
| New Functions | |
| F-Number Display | Displayed on the AW-RP150GJ and AW-RP60GJ sides |
| Menu Display on IP Video | Supported*15 |
| Power LED | ON/OFF control |
| Tripod Screw Penetration Measures | Possible |
| Pan/Tilt Mechanical Method | New Direct Drive System |
| Privacy Mode | The lens surface faces backward when standing by (ON/OFF)* Default is OFF |
| Image Stabilization | OIS 2-axisMENU switching: Select between Off/O.I.S.(STABLE)/O.I.S.(PAN/TILT) |
| Other Function | |
| Tally LED display color | red / green |
| VR Compatibility | Supports FreeD protocol |

Note

*1:NDI® is a registered trademark of Vizrt NDI AB in the United States and other countries. Discontinued Model

*2:Will be supported in the future

*3:Can be set in 1 dB step increments.

*4:Cannot be set when the format is 2160/29.97p, 2160/23.98p, 2160/24p, 2160/25p, 1080/29.97p, 1080/23.98p (59.94i), 1080/29.97PsF, 1080/23.98PsF, 1080/25p, 1080/25PsF.

*5:STP (Shielded Twisted Pair) is recommended.

*6:Use Category 6 or higher when transmitting 4K video.

*7:To ensure safety, the unit must be secured using the mount bracket supplied.

*8:Note that the operating noise may be loud in high speed. If the operating noise is disturbing, use the Normal mode.

*9:The main unit may appear in the video depending on the pan/tilt position.

*10:Supported OS indicated are for browsers current as of August 2020. See "Service and Support / PASS" for the latest information on browser support.

*11:NDI® is a new protocol developed by NewTek, Inc. that supports IP video production workflow.

*12:NDI® is a registered trademark of NewTek, Inc. in the United States.

*13:In this instance, NDI® is used to indicate low latency with NDI® High Bandwidth, NDI® HX is used to indicate high efficiency low bandwidth NDI® HX. In the NDI® HX mode, 4K video signals cannot be output. AW-UE80 supports NDI® HX version 2 and Full HD output.

*14:Simultaneous operation with the AW protocol is not possible.

*15:Non-synchronous with SDI-OUT

1920x1080, 1280x720

Transmission Type: TCP/UDP, Unicast/Multicast

AAC-LC, 48 kHz, 16 bit, 2 ch

NDI®*1 HX version 2: Included as standard

NDI®*1 High Bandwidth: Included as standard*14

AAC-LC, 48 kHz, 2 ch