

AW-UE80

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



KEY FEATURES

- Supports a wide variety of IP transmission protocols, including high-bandwidth NDI*1, NDI|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

The AW-UE80 has a newly-designed and compact body with a weight of only 2.0kg, which makes it very easy to handle and to install in any kind of setting, especially when positioning the camera on trusses or ceilings.

The AW-UE80 has been designed to support the following markets:

- Fixed-rig/factual programming
- Rental and staging
- Esports
- Broadcast and mixed reality studio environments
- Parliaments and theatres
- Higher education
- Corporate installs

Single-cable solution

The AW-UE80 offers PoE++ support for camera power, control and video transmission over a single cable.

Direct drive system

The AW-UE80 features the direct drive system based on Panasonic's own technology for quiet and smooth vertical and horizontal direction, with a reduced operating sound of NC25 or lower. Direct drive also opens up more opportunities for PTZ operation including faster, precise movement and with higher accuracy in preset positioning – making it Panasonic's fastest, quietest and most accurate PTZ yet.

Upgraded 4K sensor

The AW-UE80 features a new 1/2.5-type 4K MOS sensor that produces stunning UHD video with true 4K resolution of 1,500 TV lines in UHD. The UE80 supports 3G SDI, HDMI and IP which makes it an ideal option for using within existing HD or 4K workflows thanks to its simultaneous video output feature.

Wide-Angle Lens

The AW-UE80 introduces a new wide-angle lens with a 74.1° field of view and a 24x optical zoom, enabling a wide area to be shot from a limited installation space, in addition to maintaining high image quality at high zoom ratios. This allows shooting in large indoor spaces. Intelligent zoom extends its capabilities to 28x in UHD and 36x in Full-HD.

Optical Zoom and Image Stabilisation

Optical Image Stabilisation (OIS) and Electronic Image Stabilisation (EIS) have been added to the unit to ensure smooth pan-tilt movement when in busier environments or moving or be placed onto a robotic system for example.

New Processor

The AW-UE80 includes a new powerful chipset platform, making the PTZ incredibly responsive and capable of increased video processing tasks for higher image quality and lower latency output.

4K & HD Analogue Outputs

The AW-UE80 supports up to 4K 50p/60p video at 3840 x 2160 to provide professional and high-quality shooting of moving images, as well as a wide variety of output interfaces such as 3G-SDI, HDMI, and IP – which can be activated simultaneously for HD and 4K workflows.

New NDI, SRT & IP Outputs

There is also a wide variety of IP transmission protocols available out of the box, including NDI*1, NDI|HX version 2, and SRT*2. High bandwidth NDI can

transmit full HD video up to 100 Mbps.

The AW-UE80 also offers high-efficiency, low bandwidth NDI|HX version 2 to enable video transmission at low bitrates. In both cases, only one single LAN cable is needed.

Secure Reliable Transport (SRT*2) is also supported to maintain stability while transmitting high-quality video, even in unstable network environments and allows video distribution over public internet in a secure and reliable way. SRT offers encryption and as lost packets are automatically detected and resent.

RTMP/RTMPS*4 provides direct streaming to live broadcasting services such as YouTube Live and Facebook Live from the camera directly.

FreeD Support for Virtual and Augmented Reality Applications

Like the AW-UE150 and AW-UE100, the AW-UE80 includes FreeD*5 support to enable connection with AR/VR*6 systems. FreeD*5 allows the camera tracking information (pan/tilt/zoom/focus/iris) to be output together with a synchronisation signal to easily build systems without an encoder.

New Web Interface & Simplified Workflows

A brand new web interface has been introduced for professional operators working within darker environments to easily navigate the advanced GUI for operators.

Panasonic offers an [entire ecosystem of solutions](#) to enable the new PTZ cameras to be smoothly introduced into existing camera systems. This includes use with its remote camera controllers, [PTZ Control Center](#) centralised control software, and its [automatic tracking software](#) for presentations and lectures, enabled by face recognition and human body detection.

*1: NDI: High bandwidth NDI

*2: SRT: Secure Reliable Transport

*3: NDI|HX: High efficiency low bandwidth NDI|HX.

*4: RTMP: Real-Time Messaging Protocol, RTMPS: Real-Time Messaging Protocol Secure

*5: FreeD is a protocol widely used in virtual studio systems for transmitting camera tracking information.

SPECIFICATIONS

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 6.732inches
Finish	AW-UE80W: WhiteAW-UE80K: Black
Controller Supported	AW-RP150GJ, AW-RP60GJ, AW-RM50AG, AK-HRP1000*1, 2, AK-HRP1005*1, 2, AK-HRP1015*2, AK-HRP250*2
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	1MOS
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 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
Synchro Scan 59.94p/59.94i	60.0 Hz to 7200 Hz
Synchro Scan 29.97p	30.0 Hz to 7200 Hz
Synchro Scan 23.98p/24p	24.0 Hz to 7200 Hz
Synchro Scan 50p/50i	50.0 Hz to 7200 Hz
Synchro 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 %

Synchronization System	Internal/External synchronization (BBS/Tri-level sync)
Input Connectors	DC 12 V IN, G/L IN(BNC)BBS (Black Burst Sync), tri-level sync supported)
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 HDMI	HDMI 2.0 connector, 4:2:2/10bit• HDCP is not supported. • Viera Link is not supported
Video Output 3G-SDI OUT	SMPT292M/424M/ 75 Ω(BNC×1)• Level-A/Level-B supported
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)
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® HX version 2*11, 12, 13 (H.264), High Bandwidth NDI®
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
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 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
NDI Support	NDI® HX version 2: Included as standard High Bandwidth NDI®: Included as standard*14
Output Formats	High Bandwidth NDI® : <input type="checkbox"/> HD <input type="checkbox"/> 1080/59.94p, 1080/50p, 1080/29.97p, 1080/25p, 1080/24p, 1080/23.98p, 720/59.94p, 720/50p
Image Resolution NDI® HX version 2	1920x1080, 1280x720
Image Transmission Setting (High Bandwidth NDI®)	Transmission Type: TCP/UDP, Unicast/Multicast Max Bit Rate: 250 Mbps
Image Transmission Setting (NDI® HX version 2)	Transmission Type: TCP/UDP, Unicast/Multicast
Audio Compression Type High Bandwidth NDI®	AAC-LC, 48 kHz, 2 ch
Audio Compression Type NDI® HX version 2	AAC-LC, 48 kHz, 16 bit, 2 ch
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-axis MENU switching: Select between Off/O.I.S.(STABLE)/O.I.S.(PAN/TILT)
Tally LED display color	red / green
VR Compatibility	Supports FreeD protocol
Note	*1: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 high bandwidth NDI®, 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

URL: <https://business.panasonic.co.uk/professional-camera/aw-ue80>

CONTACT

Web: <https://business.panasonic.co.uk/professional-camera/contact-us>