Panasonic CONNECT



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,

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

4K PROFESSIONAL
HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE
SRT SECURE RELIABLE TRANSPORT

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AW-UE80

https://ap.connect.panasonic.com/sg/en/aw-ue80

General -> Power Requirements	12 V DC (10.8 V to 13.2 V) (Supplied AC adapter)
General -> PoE	PoE++ *1 IEEE802.3bt compliant: DC42 to 57 V (Software authentication (LLDP) is supported)
General -> Current Consumption	3.0 A (Supplied AC adaptor), 1.0 A (PoE++ power supply)
General -> Ambient Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
General -> Ambient Operating Humidity	20 % to 90 % (no condensation)
General -> Storage Temperature	–20 °C to 50 °C (–4 °F to 122 °F)
General -> Weight	Approx. 2.0 kg (4.41 lbs) (excluding ceiling mounting bracket), Approx. 2.25 kg (4.96 lbs) (including ceiling mounting bracket)
General -> Dimensions	W 170.0 mm x H 211.0 mm x D 171.0 mm (6.693 inches x 8.307 inches x 6.732 inches) (Excluding protrusions, cable cover, ceiling mounting bracket)
General -> Finish	AW-UE80W: White AW-UE80K: Black
General -> Controller Supported	See the "Compatibility Chart for Operation Devices and Application Software" page
Camera Unit -> Imaging Sensor	1/2.5-type 4K MOS x 1
Camera Unit -> Effective Pixels	Approx. 8,490,000 pixels
Camera Unit -> Zoom	• Optical zoom: 24x • i.Zoom UHD 28x, FHD 36x • Digital extender zoom: 1.4x, 2x
Camera Unit -> 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)]
Camera Unit -> Conversion Lens	Not supported
Camera Unit -> 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)
Camera Unit -> Optical Filter -> ND Filter	Through, 1/4, 1/16, 1/64, IR through (IR through is used as "night mode")
Camera Unit -> Focus	Switching between auto and manual
Camera Unit -> Focus Distance	Entire zooming range: 1200 mm (3.9 ft) Wide end: 100 mm (0.33 ft)
Camera Unit -> Color Separation Optical System	1MOS
Camera Unit -> Minimum Illumination	3 lx (F1.8, 59.94p, 50IRE, 42 dB, without accumulation)
Camera Unit -> Horizontal Resolution -> 4K	1,500 TV Typ (Center area, UHD mode, wide)
Camera Unit -> Horizontal Resolution -> HD	1,000 TV Typ (Center area, FHD mode, wide)
Camera Unit -> Gain Selection	Auto, 0 dB to 36 dB *2 (Super Gain function equipped : 37 dB to 42 dB)
Camera Unit -> Frame Mix	Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB *3
Camera Unit -> 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
Camera Unit -> 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
Camera Unit -> 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
Camera Unit -> 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
Camera Unit -> 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
Camera Unit -> Synchro Scan -> 59.94p/59.94i	60.00 Hz to 7200 Hz
Camera Unit -> Synchro Scan -> 50p/50i	50.00 Hz to 7200 Hz
Camera Unit -> Synchro Scan -> 29.97p	30.00 Hz to 7200 Hz
Camera Unit -> Synchro Scan -> 25p	25.00 Hz to 7200 Hz
Camera Unit -> Synchro Scan -> 23.98p/24p	24.00 Hz to 7200 Hz
Camera Unit -> Gamma	HD / Normal / Cinema1 / Cinema2 / Still Like
Camera Unit -> 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)
Camera Unit -> Chroma Amount Variability	OFF, –99 % to 99 %

Camera Unit -> 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
Camera Unit -> Output Format (HDMI) -> 4K	2160/59.94p, 2160/50p, 2160/29.97p (Native), 2160/25p (Native), 2160/24p (Native), 2160/23.98p (Native)
Camera Unit -> 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
Synchronization System	Internal/External synchronization (BBS/Tri-level sync)
Input Connector -> DC IN	DC 12 V IN
Input Connector -> G/L IN	BBS (Black Burst Sync), tri-level sync supported)
Output Connector -> HDMI	HDMI 2.0 connector 4:2:2/10bit • HDCP is not supported. • Viera Link is not supported.
Output Connector -> 3G-SDI OUT	SMPTE292M/424M/ 75 Ω(BNC×1) • Level-A/Level-B supported
Input/Output Connector -> LAN	LAN terminal for IP control (RJ-45) 100BASE-TX/1000BASE-T
Input/Output Connector -> RS-422	CONTROL IN RS422A(RJ-45)
Input/Output Connector -> MIC/LINE Input	AC compatibility (compatible with IP only) Φ3.5 mm stereo mini jack • During MIC input Input 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 input Input level: -10 dBV Input 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 -> IP connecting cable	• If you have a PoE++ ethernet hub LAN cable *4 *5(category 5e or above, straight cable) Max 100 m (328 ft) • If you don't have a PoE++ ethernet hub LAN cable *4 *5(category 5e or above, straight cable) Max 100 m (328 ft)
Pan-tilt Head Unit -> AW protocol connecting cable	LAN cable *4(category 5e or above, straight cable) Max 1000 m (3280 ft)
Pan-tilt Head Unit -> Installation Method *4	Stand-alone (Desktop) or suspended (Hanging) *6
Pan-tilt Head Unit -> Pan/tilt Operation Speed	Speed range: 0.08°/s to 60°/s (Normal mode) *7 • 3 speed modes installed Normal:60°/s, Fast1:90°/s, Fast2:180°/s
Pan-tilt Head Unit -> Panning Range	±175°
Pan-tilt Head Unit -> Tilting range	-30°to 90° *8
Pan-tilt Head Unit -> Quietness	NC25 or less
Supported Operating Systems and Web Browsers -> Windows *6	Windows 10 Windows® Internet Explorer® 11(32 bit / 64 bit) Microsoft Edge Google Chrome
Supported Operating Systems and Web Browsers -> Mac *6	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
Supported Operating Systems and Web Browsers -> iPhone/iPad	iOS Safari iPadOS
Supported Operating Systems and Web Browsers -> Android *9	Android OS Google Chrome
IP Streaming -> Image Streaming Mode	JPEG(MJPEG), H.264, H.265, NDI®|HX version 2 *10 *11 *12 (H.264), High Bandwidth NDI®
IP Streaming -> Image Resolution	1920×1080, 1280×720, 640×360, 320×180
IP Streaming -> Image Transmission Setting (JPEG)	Frame rate: Maximum 30fps Image quality (Fine / Normal)
IP Streaming -> Image Transmission Setting (H.264) -> Transmission Type	Unicast port (AUTO) Unicast port (MANUAL) Multicast port
IP Streaming -> Image Transmission Setting (H.264) -> Transmission mode	Constant bit rate Frame rate Best effort
IP Streaming -> Image Transmission Setting (H.264) -> Frame Rate	[60 Hz] 5fps / 15fps / 30fps / 60fps [50 Hz] 5fps / 12.5fps / 25fps / 50fps
IP Streaming -> Image Transmission Setting (H.264) -> Max Bit Rate	512kbps / 768kbps / 1024kbps / 1536kbps / 2048kbps / 3072kbps / 4096kbps / 6144kbps / 8192kbps / 10240kbps / 12288kbps / 14336kbps / 16384kbps / 20480kbps / 24576kbp
IP Streaming -> Image Transmission Setting (H.265) -> Transmission Type	Unicast port (AUTO) Unicast port (MANUAL) Multicast port
IP Streaming -> Image Transmission Setting (H.265) -> Frame Rate	[60 Hz] 30fps / 60fps [50 Hz] 25fps / 50fps
IP Streaming -> Image Transmission Setting (H.265) -> Max Bit Rate	1024kbps / 1536kbps / 2048kbps / 3072kbps / 4096kbps / 6144kbps / 8192kbps / 10240kbps / 12288kbps / 14336kbps / 16384kbps / 20480kbps / 24576kbps
IP Streaming -> Audio Compression Format	AAC-LC, 48 kHz, 16 bit, 2 ch

IP Streaming -> Supported Protocol -> Network Protocol	ICMP, ARP, GARP, MLD
IP Streaming -> Supported Protocol -> Transmission Protocol	TCP/IP, UDP/IP
IP Streaming -> Supported Protocol -> IPv6	HTTP, HTTPS, DNS, NTP, DHCPv6, MDNS, SNMP, 802.1X
IP Streaming -> Supported Protocol -> IPv4	HTTP, HTTPS, DNS, NTP, DHCPv4, MDNS, SNMP, 802.1X
IP Streaming -> Supported Protocol -> Video Streaming Protocol	RTP/RTCP over RTSP, RTMP, RTMPS, SRT, MPEG2-TS over UDP, NDI® |HX version 2, High bandwidth NDI®
IP Streaming -> Supported Protocol -> External Device Cooperation Protocol	FreeD, TSL5.0, SNMP
NDI® Support -> NDI® Support	NDI® NDI®|HX Ver.2: Included as standard *13 High Bandwidth NDI®: Included as standard*13
NDI® Support -> Output Format (NDI® High bandwidth) -> HD	1080/59.94p, 1080/50p, 1080/29.97p, 1080/25p, 1080/24p, 1080/23.98p, 720/59.94p, 720/50p
NDI® Support -> Image Resolution (NDI® HX)	1920x1080, 1280x720
NDI® Support -> Image Streaming Setting (NDI® High bandwidth) -> Transmission Type	TCP/UDP, Unicast/Multicast
NDI® Support -> Image Streaming Setting (NDI® High bandwidth) -> Max Bit Rate	250 Mbps
NDI® Support -> Image Streaming Setting (NDI® HX) -> Transmission Type	TCP/UDP, Unicast/Multicast
NDI® Support -> Image Streaming Setting (NDI® HX) -> Flame rate	[60 Hz] 5fps/15fps/30fps/60fps [50 Hz] 5fps/12.5fps/25fps/50fps
NDI® Support -> Image Streaming Setting (NDI® HX) -> Max Bit Rate	512kbps / 768kbps / 1024kbps / 1536kbps / 2048kbps / 3072kbps / 4096kbps / 6144kbps / 8192kbps / 10240kbps / 12288kbps / 14336kbps / 16384kbps / 20480kbps / 24576kbps
NDI® Support -> Audio Compression Type (NDI® High bandwidth)	AAC, 48 kHz, 2 ch
NDI® Support -> Audio Compression Type (NDI® HX)	AAC-LC, 48 kHz, 16 bit, 2 ch
Other Function -> Tally LED Display Color	red / green
Other Function -> VR Support (IP/RS422)	Compatible with FreeD
Footnote Description	* NDI® is a registered trademark of Vizrt NDI AB in the United States and other countries. 1. In normal use within the ambient operating temperature range, the PoE+ switch will also work.However, the camera may stop operating or the power supply may be stopped depending on the specifications of the PoE+ switch when the power load exceeds the PoE+ specified power when abnormalities such as pan/tilt is stopped due to external forces or when the ambient temperature has changed significantly. Operation with PoE+ switch is not guaranteed, so please check the operation in advance under the condition of use, and judge the use by yourself. 2. Can be set in 1 dB step increments. 3. 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. 4. STP (Shielded Twisted Pair) is recommended. 5. Use Category 6 or higher when transmitting 4K video. 6. To ensure safety, the unit must be secured using the mount bracket supplied. 7. Note that the operating noise may be loud in high speed. If the operating noise is disturbing, use the Normal mode. 8. The main unit may appear in the video depending on the pan/tilt position. 9. Supported OS indicated are for browsers current as of August 2020. See “Service and Support / PASS” for the latest information on browser support. 10. NDI® is a new protocol developed by NewTek, Inc. that supports IP video production workflow. 11. NDI® is a registered trademark of NewTek, Inc. in the United States and other countries. 12. 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. 13. Simultaneous operation with the AW protocol is not possible. 14. Non-synchronous with SDI-OUT