



## First 4K 60p/50p\*1 PTZ Camera supporting NDI®\*2 and SRT\*3 in the world\*4

## **AW-UE100**

Supports high bandwidth NDI® for low latency transmission of high-quality 4K 60p/50p\*1 video, and SRT\*3 for high-quality and stable transmission, and also compatible with 12G-SDI output for use in a wide range of situations, from live streaming of events to studio production.

## **Key Features**

Supports a wide variety of IP transmission protocols, including NDI®\*2, NDI® | HX\*5, and SRT\*3

Supports 4K 60p/50p\*1 shooting and 12G-SDI output

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

Supports FreeD\*1 for building AR/VR\*2 systems

Adopts new mechanical pan/tilt for improved responsiveness and quietness  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$ 









## Panasonic CONNECT





https://ap.connect.panasonic.com/th/en/aw-ue100







General -> Power Requirements	12 V DC (10.8 V to 13.2 V) (Supplied AC adaptor), 42 V to 57 V DC (PoE++ power supply)			
General -> PoE	PoE++			
	IEEE802.3bt standard: DC 42 V to 57 V			
C	(Software authentication (LLDP) is supported)			
General -> Current Consumption General -> Ambient Operating	3.0 A (Supplied AC adaptor), 1.0 A (PoE++ power supply)  0 °C to 40 °C (32 °F to 104 °F)			
Temperature	0 °C to 40 °C (32 °F to 104 °F)			
General -> Ambient Operating	20 % to 90 % (no condensation)			
Humidity				
General -> Storage Temperature	–20 °C to 50 °C (−4 °F to 122 °F)			
General -> Weight	Approx. 2.2 kg (4.84 lb) (excluding cable cover, mount bracket)			
	Approx. 2.3 kg (5.06 lb) (including cable cover, excluding mount bracket)			
General -> Dimensions	W 169.2 mm x H 204.6 mm x D 170.6 mm			
	(6-21/32 inches x 8-1/16 inches x 6-23/32 inches)			
	(aveluding protrusions, cable cover mount bracket)			
General -> Finish	(excluding protrusions, cable cover, mount bracket)  AW-UE100WP/AW-UE100WPC/AW-UE100WE/AW-UE100WED: Pearl white			
General -> Fillish	AW-UE100KP/AW-UE100KPC/AW-UE100KE/AW-UE100KED: 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			
	·			
Camera Unit -> Lens	Digital zoom: 1.4x, 2x  Motorized Optical 24x zoom, F1.8 to F4.0			
camera onic-> Lens				
	[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	Through, 1/4, 1/16, 1/64, IR through (IR through is used as "Night mode")			
Filter				
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	1MOS			
Optical System	54 2000 L 04/L L D			
Camera Unit -> Standard Sensitivity	F4, 2000 lx (When normal mode is selected)			
	F5.6, 2000 lx (When High Sens mode is selected)			
	n 3 lx (F1.8, 59.94p, 50IRE, 42 dB, without accumulation)			
	COdD(tym) (Mhon [Chooting Model] := [N] = 1)			
	60dB(typ) (When [Shooting Mode] is [Normal])			
Camera Unit -> Horizontal Resolution				
Camera Unit -> Horizontal Resolution > 4K				
Camera Unit -> Horizontal Resolution > 4K	-1500 TV lines Typ (Center area)  Auto, 0 dB to 36 dB *1			
Camera Unit -> Horizontal Resolution > 4K Camera Unit -> Gain Selection	-1500 TV lines Typ (Center area)  Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB			
Camera Unit -> Horizontal Resolution > 4K Camera Unit -> Gain Selection Camera Unit -> Frame Mix <sup></sup>	-1500 TV lines Typ (Center area)  Auto, 0 dB to 36 dB *1			
Camera Unit -> Horizontal Resolution > 4K Camera Unit -> Gain Selection Camera Unit -> Frame Mix <sup> *2</sup>	-1500 TV lines Typ (Center area)  Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB			
Camera Unit -> Horizontal Resolution > 4K Camera Unit -> Gain Selection Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter	-1500 TV lines Typ (Center area)  Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB			
Camera Unit -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i  Camera Unit -> Electronic Shutter	-1500 TV lines Typ (Center area)  Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB			
Camera Unit -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i Camera Unit -> Electronic Shutter Speed -> 50p/50i	Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000			
Camera Unit -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i Camera Unit -> Electronic Shutter Speed -> 50p/50i Camera Unit -> Electronic Shutter	Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000			
Camera Unit -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i  Camera Unit -> Electronic Shutter Speed -> 50p/50i  Camera Unit -> Electronic Shutter Speed -> 29.97p	Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000			
Camera Unit -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i Camera Unit -> Electronic Shutter Speed -> 50p/50i Camera Unit -> Electronic Shutter Speed -> 29.97p Camera Unit -> Electronic Shutter	Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000			
Camera Unit -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i Camera Unit -> Electronic Shutter Speed -> 50p/50i Camera Unit -> Electronic Shutter Speed -> 29.97p Camera Unit -> Electronic Shutter Speed -> 25.97p Camera Unit -> Electronic Shutter Speed -> 25.p	Auto, 0 dB to 36 dB *1  Super Gain function equipped: 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  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 -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i Camera Unit -> Electronic Shutter Speed -> 50p/50i Camera Unit -> Electronic Shutter Speed -> 29.97p Camera Unit -> Electronic Shutter Speed -> 25.95p Camera Unit -> Electronic Shutter Speed -> 25p Camera Unit -> Electronic Shutter	Auto, 0 dB to 36 dB *1  Super Gain function equipped: 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  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 -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i  Camera Unit -> Electronic Shutter Speed -> 50p/50i  Camera Unit -> Electronic Shutter Speed -> 29.97p  Camera Unit -> Electronic Shutter Speed -> 25.97  Camera Unit -> Electronic Shutter Speed -> 23.98p/24p  Camera Unit -> Synchro Scan ->	Auto, 0 dB to 36 dB *1  Super Gain function equipped : 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000			
Camera Unit -> Horizontal Resolution > 4K Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i Camera Unit -> Electronic Shutter Speed -> 50p/50i Camera Unit -> Electronic Shutter Speed -> 29.97p Camera Unit -> Electronic Shutter Speed -> 25.9 Camera Unit -> Electronic Shutter Speed -> 25.9 Camera Unit -> Electronic Shutter Speed -> 25.9 Camera Unit -> Electronic Shutter Speed -> 23.98p/24p Camera Unit -> Synchro Scan -> 59.94p/59.94i	Auto, 0 dB to 36 dB *1  Super Gain function equipped: 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/25, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/24, 1/48, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  60.00 Hz to 7200 Hz			
Camera Unit -> Horizontal Resolution > 4K  Camera Unit -> Gain Selection  Camera Unit -> Frame Mix <sup> *2</sup> Camera Unit -> Electronic Shutter Speed -> 59.94p/59.94i  Camera Unit -> Electronic Shutter Speed -> 50p/50i  Camera Unit -> Electronic Shutter Speed -> 29.97p  Camera Unit -> Electronic Shutter Speed -> 25.9  Camera Unit -> Electronic Shutter Speed -> 25.9  Camera Unit -> Electronic Shutter Speed -> 25.9  Camera Unit -> Electronic Shutter Speed -> 23.98p/24p  Camera Unit -> Synchro Scan ->	Auto, 0 dB to 36 dB *1  Super Gain function equipped: 37 dB to 42 dB  Auto, 0 dB, 6 dB, 12 dB, 18 dB, 24 dB  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/30, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  1/25, 1/50, 1/60, 1/100, 1/120, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/10000  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 ->	30.00 Hz to 7200 Hz				
29.97p Camera Unit -> Synchro Scan -> 25p	25.00 Hz to 7200 Hz				
Camera Unit -> Synchro Scan ->	24.00 Hz to 7200 Hz				
23.98p/24p					
Camera Unit -> Gamma	HD / FILMLIKE1 / FILMLIKE2 / FILMLIKE3				
Camera Unit -> White Balance	ATW: 3200K, 5600K				
	AWB: AWB-A / AWB-B				
	VAR (selectable between 2000K and 15000K by designating a value)				
Camera Unit -> Chroma Amount Variability	OFF, -99 % to 99 %				
Camera Unit -> Scene File	Scene1, Scene2, Scene3, Scene4				
Camera Unit -> Output Format (SDI) -: 4K	>2160/59.94p, 2160/50p, 2160/29.97p *3, 2160/25p *3, 2160/24p *3, 2160/23.98p *3				
	>1080/59.94p, 1080/50p, 1080/29.97p *3, 1080/29.97PsF, 1080/25p *3,				
HD	1080/25PsF, 1080/23.98p *4, 1080/24p *3, 1080/23.98p *3, 1080/23.98PsF,				
	1080/59.94i, 1080/50i, 720/59.94p, 720/50p				
-> 4K	0)2160/59.94p, 2160/50p, 2160/29.97p *3, 2160/25p *3, 2160/24p *3, 2160/23.98p *3				
	0)1080/59.94p, 1080/50p, 1080/29.97p *3, 1080/25p *3, 1080/23.98p,				
-> HD	1080/24p *3, 1080/23.98p *3 *10, 1080/59.94i, 1080/50i, 720/59.94p, 720/50p				
Synchronization System	Internal/External synchronization (BBS/Tri-level sync)				
Input Connector -> DC IN Input Connector -> G/L IN	DC 12 V IN BBS (Black Burst Sync), tri-level sync supported				
Input connector -> U/L IN					
Input Connector -> AUDIO INPUT ->	75 Ω terminal (BNCx1) Compatible (SDI/HDMI/IP)				
Stereo Mini Jack					
	AAC compatible (compatible with IP only)				
	ø 3.5 mm stereo mini jack				
	Input impedance: Approx. 10 kΩ (unbalanced)				
	During MIC input				
	Input level: -40 dBV (0 dB=1 V/Pa, 1 kHz)				
	Plug-in power compatible, supply voltage: 2.5 V ± 0.5 V				
	During LINE input				
	Input level: –10 dBV				
	·				
	• 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: 24bit (SDI, HDMI), 16bit (IP)				
Output Connector -> HDMI	HDMI 2.0 connector				
	4:2:2/10bit				
	• HDCP is not supported.				
	• Viera Link is not supported.				
Output Connector -> 12G-SDI OUT	SMPTE 2082-1, SMPTE424M/SMPTE292M / 75 Ω (BNC x 1)				
	• Level-A/Level-B supported				
Output Connector -> 3G-SDI OUT	SMPTE424M/SMPTE292M / 75 $\Omega$ (BNC x 1)				
T	Level-A/Level-B supported  ANNo principle of the VB control of the decides a support of the VB control of the VB co				
Input/Output Connector -> LAN	LAN terminal for IP control and video transmission (RJ-45) 100BASE-TX/1000BASE-T				
Input/Output Connector -> RS-422	PoE++ power terminal (IEEE802.3bt compliant)  CONTROL IN RS-422A (RI-45)				
Pan-tilt Head Unit -> IP connecting	LAN cable *5:(category 5e or above, straight cable), max. 100 m (328 ft)				
cable					
Pan-tilt Head Unit -> AW protocol	LAN cable *5:(category 5e or above, straight cable), max. 1000 m (3280 ft)				
connecting cable Pan-tilt Head Unit -> Installation	Stand-alone (Desktop) or suspended (Hanging) *6				
Method					
•	nSpeed range: 0.08°/s to 60°/s (Normal mode)				
Speed	• 3 speed modes installed				
	Normal: 60°/s, Fast1: 90°/s * <sup>7</sup> , Fast2: 180°/s * <sup>7</sup>				
Pan-tilt Head Unit -> Panning Range	±175°				
Pan-tilt Head Unit -> Tilting range	-30° to 210° <sup>*8</sup> NC25 or less				
Pan-tilt Head Unit -> Quietness Supported Operating Systems and	NC25 or less Microsoft® Windows® 10				
Web Browsers -> Windows <sup></sup>					
*9	Microsoft Edge				
Supported Operating Systems and	Google Chrome MacOS 10.13/Safari 13, MacOS 10.14/Safari 13				
Web Browsers -> Mac <sup> *9</sup>					
Supported Operating Systems and	MacOS 10.15/Safari 13, MacOS 10.15/Google Chrome iOS				
Web Browsers -> iPhone/iPad <sup></sup>	Safari				
*9					
	iPadOS				

Supported Operating Systems and	Android OS				
Web Browsers -> Android <sup> *9</sup>	Google Chrome				
IP Streaming -> Image Streaming Mode	JPEG (MJPEG), H.264, H.265, NDI®  HX, High Bandwidth NDI®				
IP Streaming -> Image Resolution	3840x2160, 1920x1080, 1280x720, 640x360, 320x180				
IP Streaming -> Image Transmission Setting (JPEG)	·				
	Image quality (Fine / Normal)				
IP Streaming -> Image Transmission	Unicast port (AUTO)				
Setting (H.264) -> Transmission Type	Unicast port (MANUAL)				
	Multicast port				
IP Streaming -> Image Transmission					
Setting (H.264) -> Transmission mode	Frame rate				
	Best effort				
IP Streaming -> Image Transmission Setting (H.264) -> Frame Rate	[60Hz] 5fps / 15fps / 30fps / 60fps (UHD: 30fps, 60fps)				
	[50Hz] 5fps / 12.5fps / 25fps / 50fps (UHD: 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 / 24576kbps / 32768kbps / 40960kbps / 51200kbps / 76800kbps				
IP Streaming -> Image Transmission					
Setting (H.265) -> Transmission Type					
	Unicast port (MANUAL)				
	Multicast port				
IP Streaming -> Image Transmission	[60Hz] 30fps				
Setting (H.265) -> Frame Rate	[50Hz] 25fps				
	8192kbps / 12288kbps / 25600kbps / 51200kbps / 76800kbps				
Setting (H.265) -> Max Bit Rate					
IP Streaming -> Audio Compression Format	AAC-LC, 48 kHz / 16 bit / 2ch				
	TCP/IP, UDP/IP, HTTP, HTTPS, DNS, NTP, DHCPv6, RTP, MLD, ICMP, ARP, RTMP, SRT, SNMP,				
IPv6	MPEG2-TS over UDP				
IP Streaming -> Supported Protocol -> IPv4	· TCP/IP, UDP/IP, HTTP, HTTPS, RTSP, RTP/RTCP, DHCP, DNS, DDNS, NTP, IGMP, ICMP, ARP, RTMP, RTMPS, SRT, SNMP, MPEG2-TS over UDP				
NDI <sup>®</sup> Support ->	NDI®  HX version 2 : Included as standard				
NDI <sup>®</sup> Support					
	High Bandwidth NDI®: Included as standard				
Other Function -> Tally LED Display Color	red / green				
Footnote Description	* NDI® is a registered trademark of Vizrt NDI AB in the United States and other countries.				
	1 dB steps.				
	This cannot be configured 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.				
	Native output.				
	OVER 59.94i output (your monitor may recognize the signal as 59.94i).				
	Use of an STP (shielded twisted pair) cable is recommended.				
	To ensure safety, the unit must be secured using the mount bracket supplied.				
	Note that the operating noise may be loud in high speed. If the operating noise is disturbing, use the Normal mode.				
	Depending on the pan or tilt position, the camera may be reflected in the image.				
	Supported OS indicated are for browsers current as of August 2020. See "Service and				
	Support / PASS" for the latest information on browser support.  It denotes "1080/23.98p over 59.94p"				
	1. ac., acc. 1. acc. 2007 Ed.				