



Kamera PTZ 4K to zapewnia zwiększenie kreatywności i ekspresji wizualnej.

AW-UE160

Kamera PTZ 4K AW-UE160 jest wyposażona w nowo opracowany przetwornik MOS 4K 1", który zapewnia najwyższą czułość spośród wszystkich produktów PTZ firmy Panasonic. Zespoły produkcyjne nagrywające w sali koncertowej lub kościele mogą z łatwością uchwycić wyraźne obrazy nawet w najtrudniejszych warunkach oświetleniowych. Tymczasem nowy optyczny filtr dolnoprzepustowy UE160 zmniejsza efekt moiré, zapewniając wyraźniejszą jakość obrazu podczas fotografowania na ścianie LED, co jest szczególnie ważne w przypadku wynajmu, inscenizacji lub kultu. Duża liczba klatek na sekundę pomoże nadawcom sportowym rejestrować ujęcia w zwolnionym tempie w jakości HD do powtórek, a bezproblemowa integracja z systemem kamer robotycznych przenosi do PTZ ruchy w stylu transmisji na żywo, co skutkuje dynamiczną i bardzo wciągającą produkcją wideo.

Key Features

Bezkompromisowa wydajność fotografowania i funkcjonalność

Optyczny filtr dolnoprzepustowy znacznie redukuje osady moiré

Nowo opracowany czujnik 4K oferujący doskonałą czułość

Znacznie ulepszony autofokus dzięki zaawansowanej technologii

SMPT E 2110 Wsparcie przy zakupie dodatkowego klucza programowego

Realizuj produkcję wideo nowej generacji za pomocą różnych metod i funkcji fotografowania.

Łatwość obsługi i wszechstronność zmniejsza stres związany z nagrywaniem na miejscu.





AW-UE160

<https://eu.connect.panasonic.com/pl/pl/products/broadcast-proav/aw-ue160-serisi>

Output Format (UHD/FHD SDI)	4K2160/59.94p, 2160/50p, 2160/29.97p(Native), 2160/25p(Native), 2160/24p(Native), 2160/23.98p(Native) *2160/60p will be supported in version upgrade. HD1080/119.88p*, 1080/100p*, 1080/60p, 1080/59.94p, 1080/50p, 1080/29.97p(Native), 1080/25p(Native), 1080/24p(Native), 1080/23.98p(Native), 1080/59.94i, 1080/50i, 720/59.94p, 720/50p*1080/119.88p and 1080/100p use two 3G/SDI OUTPUT1/2 channels.*No output from 12G/SDI.
Output Format (HDMI)	4K 2160/59.94p, 2160/50p, 2160/29.97p(Native), 2160/25p(Native), 2160/24p(Native), 2160/23.98p(Native) *2160/60p will be supported in version upgrade. HD 1080/119.88p, 1080/100p, 1080/60p, 1080/59.94p, 1080/50p, 1080/29.97p(Native), 1080/25p(Native), 1080/24p(Native), 1080/23.98p(Native), 720/59.94p, 720/50p
Output Format (Fiber(Only Video))	4K 2160/59.94p, 2160/50p, 2160/29.97p(Native), 2160/25p(Native), 2160/24p(Native), 2160/23.98p(Native) *2160/60p will be supported in version upgrade. HD 1080/60p, 1080/59.94p, 1080/50p, 1080/29.97p(Native), 1080/25p(Native), 1080/24p(Native), 1080/23.98p(Native), 1080/59.94i, 1080/50i, 720/59.94p, 720/50p
Supported Protocol	<ul style="list-style-type: none"> • Network Protocol: ICMP, ARP, GARP, MLD • Transmission Protocol: TCP/IP, UDP/IP • Application Protocol: IPV4 : HTTP, HTTPS, DNS, NTP, DHCPv6, MDNS, SNMP, 802.1X IPV6 : HTTP, HTTPS, DNS, NTP, DHCPv4, MDNS, SNMP, 802.1X • Video Streaming Protocol: RTP/RTCP over RTSP, RTMP, RTMPS, SRT, MPEG2-TS over UDP, NDI HX version 2, High bandwidth NDI • External Device Cooperation Protocol: FreeD, TSL5.0, SNMP
Current Consumption	5.0 A (XLR IN connector), 1.5A (PoE++ power supply)
Power Requirements	12VDC±10%(10.8V to 13.2V)
Ambient Operating Temperature	0 °C to +40 °C (32 °F to +104 °F)
PoE++	IEEE802.3bt standard :DC 42 V to 57V (Camera Input)*Limited in function when PoE used.(Software authentication (LLDP) is supported))
Storage Temperature	-20 °C to +50 °C (-4 °F to +122 °F)
Ambient Operating Humidity	20 % to 90 % (no condensation)
Mass	Approx. 4.6kg (10.14lbs)(excluding mount bracket)
Finish	AW-UE160W : Pearl White AW-UE160K : Black
Controller Supported	AW-RP150 , AW-RP60 , AK-HRP1010 , AK-HRP1015 , AK-HRP250 *IP only. Other ROP will be compatible in the future. **Digext Certification operation of AW-RP150 and AW-RP60 are not guaranteed.
Lens	Motorized Optical 20x Zoom F2.8 to F4.5(f=8.8 mm to 176.0 mm, 35mm equivalent:24.5 mm to 490.0 mm)
Imaging Sensors	1-type (1")* 4K MOSx1 *Effective size Effective Pixels: Approx. 9,620,000 pixels
Camera Unit	-
Optical Filter	Through, 1/4, 1/16, 1/64 *equipped with Low pass filter(Through is used as "night mode")

Focus	Switching between auto and manual
Conversion	Not Supported
Lens	
Angle of View	Horizontal: 75.1°(wide) to 4.0°(tele)
Range	Vertical: 46.7°(wide) to 2.3°(tele) Diagonal: 82.8°(wide) to 4.6°(tele)
Focus Distance	Entire zooming range: 1000 mm, Wide end: 100 mm
Standard Sensitivity	F1 1/2,000lux (Normal), F1 4/2,000lux (Low Light)
Color	1MOS
Separation	
Optical Systems	
Horizontal Resolution	1,600 TV Typ (center area, UHD Mode, Wide)
Gain Selection	Auto, -6dB to 12dB *1 dB step increments can be set.
Frame Mix	Auto, 0dB, 6dB, 12dB, 18dB, 24dB*If format is set in 1080/119.88p, 1080/100p, 2160/29.97p, 2160/23.98p, 2160/24p, 2160/25p, 1080/29.97p, 1080/25p, it cannot be set.
Electronic Shutter Speed	60p: 1/60, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000 59.94p/59.94i: 1/60, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000 50p/50i: 1/60, 1/100, 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000 29.97p: 1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000 25p: 1/48, 1/50, 1/60, 1/96, 1/100, 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000 23.98p: 1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000 24p: 1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000 59.94p- 120fps: 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000 50p- 100fps: 1/125, 1/250, 1/500, 1/1,000, 1/1,500, 1/2,000
Synchro Scan	60p: 60.00Hz to 7,200Hz 59.94p/59.94i: 60.00Hz to 7,200Hz 50p/50i: 50.00Hz to 7,200Hz 29.97p: 30.00Hz to 7,200Hz 25p: 25.00Hz to 7,200Hz 23.98p: 24.00Hz to 7,200Hz 59.94p- 120fps: 120Hz to 7,200Hz 50p- 100fps: 100Hz to 7,200Hz
White Balance	ATW, 3200K, 5600K AWB-A, AWB-B VAR (selectable between 2000 K and 15000 K by designating a value) *ATW Speed 3-stage variables.
Gamma	HD / NORMAL / CINEMA1 / CINEMA2 *HLG is set in other menuMASTER GAMMA (0.15~0.75)R GAMMA (-75~+75)B GAMMA (-75~+75) R BLACK GAMMA (-20~+20)B BLACK GAMMA (-20~+20)
Scene File	Scene 1 to 8
Chroma Amount Variability	OFF, -100% to 40%
HDMI	HDMI 2.0 connector 4:2:2/10bit *HDCP is not supported. *Viera Link is not supported.

Synchronization	Internal/External synchronization (BBS/Tri-level sync)
System	
Input	DC 12 V IN, G/L IN(BNC)
G/L In	BBS (Black Burst Sync), tri-level sync supported)
Output	-
AUDIO INPUT	XLR(2ch) or MIC/LINE Input compatibles /HDMI /IP)AAC compatibility (compatible with IP only)3-pin XLR female connectors, 2ch, balanced input · During MIC input Input level: -50dBu or -60dBu/-40dBu(0 dB=1 V/Pa, 1 kHz) Phantom power compatible, Supply voltage:47 V±2 V Input impedance: Approx. 10kΩ · During LINE input Input level : 0 dBu (or +4dBu/-20dBu) Input impedance: Approx. 10kΩ · Input volume variable range: -40 dB ~ 0dB ~ +20 dB (1 dBstep) · Embedded audio output level: -12dBFS/-18dBFS/-20dBFS · Sampling frequency: 48 kHz · Quantization bit rate : 24 bit(SDI, HDMI), 16bit(IP)
1/2	
12G SDI OUT	SMPTTE2082-1, SMPTE424M /SMPTE292M / 75 Ω(BNC×1) *Level-A/Level-B supported
3G SDI OUT1	SMPTTE424M /SMPTE292M / 75 Ω(BNC×1) *Level-A/Level-B supported
3G SDI OUT2/PM	SMPTTE424M /SMPTE292M / 75 Ω(BNC×1) *Level-A/Level-B supported
SFP+	SFP+ standard (Single Fiber) *This unit does not support input by optical signals
LAN	LAN connector for IP control (RJ-45)
USB	USB3.0 HOST(5G mobile router with USB tethering support) *Limited power supply to USB Wifi dongle.
RS-422	CONTROL IN RS422A (RJ-45)
Input/Output	-
IP Connecting	· If you have PoE++ ethernet hub
Cable	LAN cable *1(category 5e or above, straight cable) max. 100 m (328 ft) · If you don't have PoE++ ethernet hub LAN cable *1(category 5e or above, straight cable) max. 100 m (328 ft) *1 STP(Shielded Twisted Pair) is recommended *2 Category 6 or above is used for 4K video transmission.
Pan-tilt Head Control	-
AW Protocol Connecting	LAN cable*(category 5e or above, straight cable) max. 1000 m (3280 ft) *STP (Shielded Twisted Pair) is recommended
Cable	
Pan/Tilt Operation	Speed range: 0.08 °/s ~180°/s(Normal mode)
Speed	3 speed modes installed: Normal: ~60°/s, Fast1: ~90°/s, Fast2: ~180°/s
Quietness	NC35 or less *When standing still, NC25 or less
Tilting Range	-30°~ 210° *Depending on the pan or tilt position, the camera may be reflected in the image.
Panning Range	±175°
Pan-Tilt Head Unit	-
Installation Method	Stand-alone (Desktop) or suspended (Hanging) *To ensure safety, the unit must be secured using the mount bracket supplied.
Windows	Windows®10 Microsoft Edge Google Chrome
Supported operating systems and web browsers	-
Image Resolution	3840x2160, 1920x1080, 1280x720, 640x360
Mac	macOS 10.13 / Safari 13 macOS 10.14 / Safari 13 macOS 10.15 / Safari 13 macOS 10.15 / Google Chrome
Android	Android OS Google Chrome
IP Streaming	-
Image Streaming Mode	JPEG(MJPEG), H.264, H.265, NDI HX Ver2, High Bandwidth NDI
Image Transmission setting (JPEG)	· Frame rate : Max. 30fps *No bit rate specified *JPEG and H.264, JPEG and H.265 simultaneous operation depends on bit rate · Image quality: Fine/Normal

Image Transmission Setting (H.264)	<ul style="list-style-type: none"> Transmission Type : Unicast port (AUTO), Unicast port (MANUAL), Multicast port Transmission mode :CBR, VBR Frame Rate <ul style="list-style-type: none"> [60Hz] <ul style="list-style-type: none"> 5fps/15fps/30fps/60fps (UHD: 30fps,60fps) [50Hz] <ul style="list-style-type: none"> 5fps/12.5fps/25fps/50fps (UHD: 25fps,50fps) Max to Min Bit Rate: <ul style="list-style-type: none"> 2048kbps/4096kbps/8192kbps/10240kbps/12288kbps/14336kbps/20480kbps/24576kbps/51200kbps/76800kbps
iPhone / iPad / iPod touch	iOS, Safari, iPadOS
Image Transmission Setting (H.265)	<ul style="list-style-type: none"> Transmission Type: Unicast port (AUTO), Unicast port (MANUAL), Multicast port Transmission Mode: CBR,VBR Frame Rate <ul style="list-style-type: none"> [60Hz] <ul style="list-style-type: none"> 30fps / 60fps [50Hz] <ul style="list-style-type: none"> 25fps / 25fps Max to Min Bit Rate: <ul style="list-style-type: none"> 2048kbps/4096kbps/8192kbps/10240kbps/12288kbps/14336kbps/20480kbps/24576kbps/51200kbps/76800kbps
Audio Compression Type	AAC-LC, 48kHz/16bit/2ch
Output Format	<ul style="list-style-type: none"> Video Format (Full x1, MONI x1.Crop x1, all of these same format) 1080/60p, 1080/59.94p, 50p, 1080/59.94i, 50i, 1080/29.97p(Native), 25p(Native), 1080/24p, 1080/23.98p(Native), 720/59.94p, 50p Audio Specification INPUT1/INPUT2 PCM/48kHz/24bit/1 ch x2
NDI (High Bandwidth NDI,NDI HX Ver.2)	-
Output Format (High bandwidth NDI)	4K <ul style="list-style-type: none"> 2160/59.94p, 2160/50p, 2160/29.97p, 2160/25p, 2160/24p, 2160/23.98p
	HD <ul style="list-style-type: none"> 1080/60p, 1080/59.94p, 1080/50p, 1080/29.97p, 1080/25p, 1080/24p, 1080/23.98p, 720/59.94p, 720/50p
Image Resolution (NDI HX Ver.2)	3840x2160, 1920x1080, 1280x720
Image Streaming Setting	<ul style="list-style-type: none"> High Bandwidth NDI Transmission Type: TCP /UDP, Unicast/Multicast Bit Rate: Max. 250Mbps NDI HX version.2: <ul style="list-style-type: none"> Transmission Type: TCP/UDP, Unicast/Multicast Frame Rate: <ul style="list-style-type: none"> [60Hz] 5fps/15fps/30fps/60fps [50Hz] 5fps/12.5fps/25fps/50fps Max Bit Rate: <ul style="list-style-type: none"> 512kbps/768kbps/1024kbps/1536kbps/2048kbps/3072kbps/4096kbps /6144kbps/8192kbps/10240kbps/12288kbps/14336kbps/16384kbps/20480kbps/24576kbps
Audio Compression Type 2	High Bandwidth NDI: AAC, 48kHz, 2ch NDI HX Ver.2: AAC-LC, 48kHz/16bit/2ch
Number of Output (TX)	Video: 3 line (Full x1, MONI x1.Crop x1) Audio: 2 line Auxiliary data: No output
Number of Input (RX)	Video: 1 line(RETURN) *Out from 3G SDI OUT2(Video is changed in the OSD menu) Audio: No input Auxiliary data: No input
Optional Accessories	-
Cropping	Select from 3 types of images from 3G/SDI OUTPUT2, Crop Zoom available
Image Stabilization	Hybrid method of OIS 2-axis + Roll direction correction MENU switching: select between OFF / O.I.S.(STABLE) / O.I.S.(PAN/TILT) / HYBRID(STABLE) / HYBRID(PAN/TILT)
Power LED	ON/OFF control

Tripod Screw Penetration Measures	Possible
Privacy Mode	The lens surface faces downward when standing by (ON/OFF)
Input Format	Video Format (Full x1, MONI x1.Crop x1, all of these same format)1080/60p, 1080/59.94i, 50i, 1080/29.97p(Native), 25p(Native) 1080/24p, 1080/23.98p(Native), 720/59.94p, 50p
New Feature	-
HDR/SDR	HLG/BT.2020 compatible, SDR/BT.709 compatible
F Number	Displayed on the AW-RP150 and AW-RP60 sides
Display	
NDI	High Bandwidth NDI, NDI HX Ver.2 included as standard
IP menu display	supported *Non-synchronous with SDI-OUT
VR (FreeD) (IP/RS422)	supported
Yellow Tally	supported
PTP	supported
5G/WiFi 6	Compatible with recommended products only
WFM display	Output with video superimposed from 3G/SDI OUTPUT2
Return Video Output	Output return video input from ST 2110 via SDI_OUT2
Horizontal Level Gauge	ON/OFF control in OSD MENU or Web GUI
Wireless Remote Controller	AW-RM50AG (Size "AA" dry battery x 2, obtained separately)
Dimensions (W x H x D)	213.0 mm x 277.0 mm x 240.0 mm (8.39inches x 10.91 inches x 9.45inches) [excluding protrusions, cable cover, ceiling mount bracket]
Supported Format	ST 2110: 10/20/21/30 PTP: ST 2059-2 NMOS: IS-04/IS-05
Output Format (ST 2110)	HD 1080/60p, 1080/59.94p, 1080/50p, 1080/29.97p(Native), 1080/25p(Native), 1080/24p(Native), 1080/23.98p(Native), 720/59.94p, 720/50p
SFP+(ST 2110)	Compatible protocol: -ST 2110-10/-20/-21/-30 -PTP ST 2059-2 -NMOS IS-04/IS-05 Output number: Video x3 (Full, Crop, Monitor), Audio x2 Input number: Video x1 (RETURN) Video format: FHD *Same as system format
ST 2110	
Zoom	• Optical Zoom: 20x• i.Zoom: UHD 24x, FHD 32x• Digital Extender Zoom: 1.4x, x