

Panasonic
CONNECT

15th









PTZ Camera
15th ANNIVERSARY

PTZ Camera System Lineup



PTZ Camera System Specification Comparison

As of April, 2023

	High-end			Standard		Entry		
								
Model	AW-UE160W/K	AW-UE150W/K	AW-UE100W/K	AW-UE80W/K	AW-UE50W/K AW-UE40W/K	AW-UE20W/K	AW-HE20W/K	AW-UE4WG/KG
Camera Body Color	Black (K) or Pearl White (W)	Black (K) or Pearl White (W)	Black (K) or Pearl White (W)	Black (K) or White (W)	Black (K) or White (W)	Black (K) or White (W)	Black (K) or White (W)	Black (K) or White (W)
General								
Sensor	1-type (1") 4K MOS	1-type (1") 4K MOS	1/2.5-type (1/2.5") 4K MOS	1/2.5-type (1/2.5") 4K MOS	1/2.5-type (1/2.5") 4K MOS	1/2.8-type (1/2.8") 4K MOS	1/2.8-type (1/2.8") MOS	1/2.5-type (1/2.5") 4K MOS
Effective Pixels	Approx. 9.62 megapixels	Approx. 20.18 megapixels	Approx. 8.49 megapixels	Approx. 8.49 megapixels	Approx. 8.49 megapixels	Approx. 8.46 megapixels	Approx. 8.46 megapixels	Approx. 8.49 megapixels
Optical Zoom	20x	20x	24x	24x	24x	12x	12x	-
i.Zoom	UHD 24x, FHD 32x	UHD 24x, FHD 32x	UHD 28x, FHD 36x	UHD 28x, FHD 36x	UHD 28x, FHD 36x	Approx. 16x	Approx. 16x	-
Digital Zoom	10x	10x	10x	10x	10x	4x	4x	4x
FOV	Horizontal	75.1° (W) to 4.0° (T)	75.1° (W) to 4.0° (T)	74.1° (W) to 3.3° (T)	74.1° (W) to 3.3° (T)	74.1° (W) to 3.3° (T)	71° (W) to 6° (T)	71° (W) to 6° (T)
	Vertical	46.7° (W) to 2.3° (T)	46.7° (W) to 2.3° (T)	46.0° (W) to 1.9° (T)	46.0° (W) to 1.9° (T)	46.0° (W) to 1.9° (T)	43° (W) to 3° (T)	43° (W) to 3° (T)
	Diagonal	82.8° (W) to 4.6° (T)	82.8° (W) to 4.6° (T)	81.8° (W) to 3.8° (T)	81.8° (W) to 3.8° (T)	81.8° (W) to 3.8° (T)	79° (W) to 7° (T)	79° (W) to 7° (T)
Focus	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Single focus
Horizontal Resolution	4K: 1,600 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)	4K: 2,000 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)	4K: 1,500 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)	4K: 1,500 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)	4K: 1,500 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)	4K: 1,400 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)	HD: 1,000 TV lines Typ (Center area)	4K: 1,400 TV lines Typ (Center area)*3 HD: 900 TV lines Typ (Center area)*3
Standard Sensitivity	F14 / 2,000 lx (Low Light) F11 / 2,000 lx (Normal)	F12 / 2,000 lx (High Sens) F9 / 2,000 lx (Normal)	F5.6 / 2,000 lx (High Sens) F4 / 2,000 lx (Normal)	-	-	-	-	-
Gain	Auto, -6 dB to 12 dB (1 dB step)	Auto, -3 dB to 36 dB (1 dB step) (Super Gain function equipped: 37 dB to 42 dB)	Auto, 0 dB to 36 dB (1 dB step) (Super Gain function installed: 37 dB to 42 dB)	Auto, 0 dB to 36 dB (1 dB step) (Super Gain function installed: 37 dB to 42 dB)	Auto, 0 dB to 36 dB (1 dB step) (Super Gain function installed: 37 dB to 42 dB)	Auto, 0 dB to 42 dB (3 dB step)	Auto, 0 dB to 42 dB (3 dB step)	Auto, 0 dB to 42 dB (3 dB step)
Control	Serial / IP / IR	Serial / IP / IR	Serial / IP / IR	Serial / IP / IR	Serial / IP / IR / USB	Serial / IP / IR / USB	Serial / IP / IR / USB	IP / IR / USB
Power	PoE++*4 / XLR	PoE++*4 / XLR	PoE++*4 / AC	PoE++*4 / AC	PoE++*4 / AC	PoE++*4 / AC	PoE++*4 / AC	PoE++*4 / USB
Current Consumption	5.0 A (XLR) 1.5 A (PoE++)	4.0 A (XLR) 1.2 A (PoE++)	3.0 A (AC) 1.0 A (PoE++)	3.0 A (AC) 1.0 A (PoE++)	1.8 A (AC) 0.6 A (PoE+)	1.3 A (AC) 0.4 A (PoE+)	1.3 A (AC) 0.4 A (PoE+)	1.0 A (USB) 0.2 A (PoE)
Weight*5	Approx. 4.6 kg (10.14 lbs)	Approx. 4.2 kg (9.24 lbs)	Approx. 2.3 kg (5.06 lb)	Approx. 2.0 kg (4.41 lbs)	Approx. 1.8 kg (3.97 lbs)	Approx. 1.9 kg (4.19 lbs)	Approx. 1.9 kg (4.19 lbs)	Approx. 0.5 kg (1.1 lb)
Dimensions (W x H x D)	213.0 mm x 277.0 mm x 240.0 mm	213 mm x 267 mm x 219 mm	169.2 mm x 204.6 mm x 170.6 mm	170.0 mm x 211.0 mm x 171.0 mm	160.0 mm x 192.1 mm x 166.0 mm	165.1 mm x 176.2 mm x 176.1 mm	165.1 mm x 176.2 mm x 176.1 mm	123 mm x 131 mm x 139 mm
Mount Position	Invertible: Ceiling or Desktop*6	Invertible: Ceiling or Desktop*6	Invertible: Ceiling or Desktop*6	Invertible: Ceiling or Desktop*6	Invertible: Ceiling or Desktop*6	Invertible: Ceiling or Desktop*6	Invertible: Ceiling or Desktop*6	Invertible: Ceiling or Desktop*6
PTZ								
Pan Range	± 175°	± 175°	± 175°	± 175°	± 175°	± 170°	± 170°	± 110° (manual)
Tilt Range*7	-30° to 210°	-30° to 210°	-30° to 210°	-30° to 90°	-30° to 90°	-30° to 90°	-30° to 90°	± 25° (manual)
Pan / Tilt Speed	Maximum speed during manual: 0.08°/s to 180°/s 3 speed mode installed*8	Maximum speed during manual: 0.08°/s to 180°/s 3 speed mode installed*8	Maximum speed during manual: 0.08°/s to 180°/s Maximum speed during preset: 300°/s	Maximum speed during manual: 0.08°/s to 180°/s Maximum speed during preset: 300°/s	Maximum speed during manual: 0.08°/s to 180°/s Maximum speed during preset: 300°/s	Maximum speed during manual: 100°/s Maximum speed during preset: 200°/s*9	Maximum speed during manual: 100°/s Maximum speed during preset: 200°/s*9	-
Operation Noise	NC35 or less (Normal use) NC25 or less (P/T standstill)	NC35 or less	NC25 or less	NC25 or less	NC25 or less	NC40 or less (60°/s or less) NC55 or less (100°/s or higher)	NC40 or less (60°/s or less) NC55 or less (100°/s or higher)	-
New Direct Drive System	-	-	✓	✓	✓	-	-	-
New PTZ Mechanism	✓ (Built-in optical encoder)	-	-	-	-	-	-	-
Video Output								
12G-SDI	✓	✓	✓	-	-	-	-	-
3G-SDI	✓*10	✓*10	✓*10	✓*10	✓*10 (AW-UE50W/K)	✓*10,11	✓*10,11	-
HDMI	✓	✓	✓	✓	✓	✓	✓	✓
USB (UVC compatible)	-	-	-	-	USB2.0 Type-C	USB2.0 Type-C	USB2.0 Type-C	USB2.0 Type-C
USB (5G mobile Router with USB Tethering Support)	✓ USB3.0	-	-	-	-	-	-	-
IP	SMPTE ST 2110	✓*12,13	-	-	-	-	-	-
	SRT	✓	✓	✓	✓	✓	✓	✓
	NDI**14	✓ (4K)	-	✓ (4K)	✓ (FHD)	-	-	-
	NDI**HX*15	✓ (NDI**HX version 2, 4K)	✓ (NDI**HX version 2, FHD) (A license must be purchased for use.)	✓ (NDI**HX version 2, FHD)	✓ (NDI**HX version 2, FHD)	✓ (NDI**HX version 2, FHD) (A license must be purchased for use.)	-	-
	RTMP/RTMPS RTSP/RTP etc.	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓
Optical Fiber	✓*16	✓*16	-	-	-	-	-	-
Control								
Browser (PC/Mac/Mobile) via IP	✓	✓	✓	✓	✓	✓	✓	✓
USB	-	-	-	-	✓	✓	✓	✓
Controller / Switcher Supported*17	AW-RP150*18 / AW-RP60*18	AW-RP150 / AW-RP60 AV-UH5500 / AV-HLC100*19	AW-RP150 / AW-RP60 AV-UH5500 / AV-HLC100*19	AW-RP150 / AW-RP60 AV-UH5500	AW-RP150 / AW-RP60 AV-UH5500	AW-RP150 / AW-RP60 AV-UH5500	AW-RP150 / AW-RP60 AV-UH5500	AW-RP150 / AW-RP60*20
IR Remote Control	AW-RM50G*19 / AW-RM50AG	AW-RM50G*19 / AW-RM50AG	AW-RM50G*19 / AW-RM50AG	AW-RM50G*19 / AW-RM50AG	AW-RM50G*19 / AW-RM50AG	AW-RM50G*19 / AW-RM50AG	AW-RM50G*19 / AW-RM50AG	AW-RM50G*19 / AW-RM50AG
Remote Operation Panel (ROP/RCP)*21	AK-HRP1010GJ / AK-HRP1015GJ AK-HRP250GJ*22	AK-HRP1010GJ / AK-HRP1000GJ*19 AK-HRP1015GJ / AK-HRP1005*19 / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1000GJ*19 AK-HRP1015GJ / AK-HRP1005*19 / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1000GJ*19 AK-HRP1015GJ / AK-HRP1005*19 / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1000GJ*19 AK-HRP1015GJ / AK-HRP1005*19 / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1000GJ*19 AK-HRP1015GJ / AK-HRP1005*19 / AK-HRP250GJ	-	AK-HRP1010
Software	SMPTE ST 2110 Activation Software Key AW-SFU60	✓	-	-	-	-	-	-
	Auto Tracking Software Key AW-SF100/AW-SF200	✓*22	✓	✓	✓	✓	✓	✓*23
	Visual Preset Software Key AW-SF300	✓	✓	✓	✓	✓	✓	✓
	PTZ Control Center	✓	✓	✓	✓	✓	✓	✓
	PTZ Virtual USB Driver	✓	✓	✓	✓	✓	✓	✓
EasyIP Setup Tool Plus	✓	✓	✓	✓	✓	✓	✓	✓
Features								
IP Streaming	✓	✓	✓	✓	✓	✓	✓	✓
Image Stabilization	Optical (O.I.S.), Electronic (E.I.S.)*24	Optical	Optical (O.I.S.), Electronic (E.I.S.)*24	Optical	Optical	-	-	-
Night Mode (for IR)	✓	✓	✓	✓	✓	-	-	-
Dynamic Range Stretch (DRS)	✓	✓	✓	✓	✓	✓	✓	✓
Audio Input / Embedding	✓ (XLR x 2)	✓	✓	✓	✓	✓	✓	-
Internal Mic	-	-	-	-	-	-	-	✓ (Audio On/Off: Available)
Color Temperature Adjustment	✓	✓	✓	✓	✓	-	-	-
Presets	Up to 100	Up to 100	Up to 100	Up to 100	Up to 100	Up to 100	Up to 100	Up to 100
High Dynamic Range (HDR)	✓ (support BT.2020)	✓ (support BT.2020)	-	-	-	-	-	-
V-Log	✓	✓	-	-	-	-	-	-
Fanless Design	-	-	-	-	✓	✓	✓	✓
Built-in ND Filters	Through, 1/4, 1/16, 1/64	Through, 1/4, 1/16, 1/64	Through, 1/4, 1/16, 1/64	Through, 1/4, 1/16, 1/64	Through, 1/4, 1/16, 1/64	-	-	-
Optical Low-pass Filter	✓	✓	✓	✓	✓	✓	✓	✓
Genlock	✓	✓	✓	✓	✓	✓	✓	✓
Digital Noise Reduction (DNR)	✓ (Equipped with New Image Processing Engine)	✓	✓	✓	✓	✓	✓	✓
High-Speed Pan / Tilt Mode*25	✓	✓	✓	✓	✓	-	-	-
HD Cropping	✓ (Cropping zoom is available.)	✓	✓ (Cropping zoom is available.)	-	-	-	-	-
AR / VR Systems	FreeD*26	FreeD*26	FreeD*26	FreeD*26	-	-	-	-
Privacy Mode	✓	✓	✓	✓	✓	✓	✓	✓
Tally Lamp	Front & Rear Tally / Red, Green, Yellow	Red, Green	Red, Green	Red, Green	Red, Green	Red	Red	Red
USB: Video Conference mode*27	-	-	-	-	✓	✓	✓	✓
Waveform Display	✓	✓	✓	✓	✓	✓	✓	✓
Horizontal Level Gauge	✓	✓	✓	✓	✓	✓	✓	✓
Built-in Auto Tracking	-	-	-	✓*22	✓*22	-	-	-
MSRP								

*NDI is a new live video production workflow support protocol developed by NewTek, Inc. NDI is a registered trademark of NewTek, Inc. in the United States and other countries. 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.
*1: Effective size. *2: LDC is the abbreviation for Lens Distortion Correction. *3: HDMI output. *4: See the Panasonic website for information on compatible PoE hubs (https://pro-av.panasonic.net/en/support/#Compatibility-Chart). *5: Excluding mount bracket. *6: To ensure safety, the unit must be secured using the mount bracket supplied.
*7: Depending on the pan or tilt position, the camera may be reflected in the image. *8: Quietness, stationary accuracy, etc., in high-speed mode may vary from normal mode. *9: TILT 140°/s. *10: HD output is available from Video Format. *11: Embedded audio is not supported. *12: To use SMPTE ST 2110, need activation by SMPTE ST 2110 Supported Software Key AW-SFU60 (sold separately). *13: 4K compressed output using JPEG XS will be supported with a firmware update. *14: In this instance, NDI is used to indicate low latency with high bandwidth NDI. *15: In this instance, NDI|HX is used to indicate high efficiency low bandwidth NDI|HX. *16: SFP+ module purchased separately. Please reference brochure for recommended models. *17: See individual product pages for information on all supported controllers. *18: IP only. *19: Discontinued products. *20: Unlike when other PTZ Cameras are connected, the display corresponds to the AW-UE4WG/KG menu structure. *21: See individual product pages for information on all supported Remote Operation Panels. *22: Support is planned in future. See the Panasonic website for the latest information (https://pro-av.panasonic.net/en/products/ptz_camera_systems.html). *23: Can be used when the wide-angle camera link function is used. *24: This EIS works for the roll direction. *25: High-speed mode speeds vary by model. *26: A protocol that outputs camera tracking data for AR/VR systems. Camera pan, tilt, zoom and focus information required for uses such as AR/VR composition is output by devices that support this protocol. *27: USB-Video Conference mode is a specific mode for using Zoom. When using this mode, the tally lamp lights blue.

4K / HD Integrated Camera

High-end



Optical Zoom
20x

4K
PROFESSIONAL
HDR

ST 2110

4K PTZ Camera for an era of enhanced creativity and the pursuit of visual expression

- The first PTZ Camera to support the SMPTE ST 2110 standard for video transmission over IP networks*1,2
- Industry's first 5G mobile router (with USB tethering support) support for high-speed, high-capacity video transmission
- New generation engine that maximizes image sensor performance and improves image quality and AF performance
- High sensitivity of F14/2,000 lx, equivalent to a studio camera
- Supports 2x high-speed output
- Supports HDMI, 3G-SDI, and IP output (NDI**3, NDI*|HX**3, etc.) as well as 12G-SDI output and fiber-optic output

NEW

4K Integrated Camera
AW-UE160W/K

High-end

4K 60p/50p*4 output, high-magnification zoom and wide-angle shooting for flexible video production



Optical Zoom
20x

4K
PROFESSIONAL
HDR

4K Integrated Camera
AW-UE150W/K

HD PTZ Camera that enables high-quality video production even in dark environments



Optical Zoom
20x

HD Integrated Camera
AW-HE145W/K

•US and Europe only model

4K 60p/50p*4 NDI**3&SRT supported PTZ Camera with a compact body and a wide range of features



Optical Zoom
24x

4K
PROFESSIONAL

4K Integrated Camera
AW-UE100W/K

Standard

Models to respond to a wide range of video production needs, such as recording of reality shows and events



Optical Zoom
24x

4K
PROFESSIONAL

4K Integrated Camera
AW-UE80W/K

Standard models suitable for use in online classes and briefing sessions



Optical Zoom
24x

4K
PROFESSIONAL

zoom
Certified

4K Integrated Camera
AW-UE50W/K AW-UE40W/K

For outdoor use

4K/60p compatible, high resolution to prevent missed shots. Outdoor model that can shoot in any external environment



Optical Zoom
24x

4K
PROFESSIONAL

IP65

NEW
4K Outdoor Integrated Camera
AW-UR100

Scheduled for release in the third quarter of CY2023

Entry

Compact 4K entry model suitable for use in meeting rooms and classrooms with limited space



Optical Zoom
12x

4K
PROFESSIONAL

zoom
Certified

4K Integrated Camera
AW-UE20W/K

Compact PTZ Camera suitable for use in meeting rooms and classrooms with limited space



Optical Zoom
12x

4K
PROFESSIONAL

zoom
Certified

HD Integrated Camera
AW-HE20W/K

Compact 4K PTZ Camera equipped with an ultra-wide-angle lens with a 111° field of view and perfect for fixed point shooting



4K
PROFESSIONAL

zoom
Certified

4K Integrated Camera
AW-UE4WG/KG

IT/IP Platform

The live video production platform allows flexible system configuration and operation, delivering improved video quality and productivity

KAIROS
Incredible Productivity

IT/IP Platform
KAIROS*5

NEW

Kairos Core 200
AT-KC200

Scheduled for release in June 2023

NEW

Kairos Core 2000
AT-KC2000

Scheduled for release in the third quarter of CY2023

Kairos Core 100
AT-KC100

NEW

Kairos Control
AT-KC10C2

Kairos Control
AT-KC10C1

Kairos Creator
AT-SFC10

IT/IP Platform KAIROS web site (https://pro-av.panasonic.net/en/products/it_ip_platform/)



Optional Products / Software

Remote Camera Controller / Wireless Remote Control

Remote Controller with high operability ensured through touch-panel GUI monitor and a new type of joystick



Remote Camera Controller
AW-RP150

Equipped with a GUI menu screen for clear visibility and a joystick for intuitive control



Remote Camera Controller
AW-RP60



Infrared Wireless Remote Control
AW-RM50AG

Switcher

4K/12G-SDI compatible compact integrated live switcher with high performance and easy operation



Live Switcher
AV-UHS500

Broadcast-quality video production with 10bit processing and easy operation. Active in streaming distribution and webinars



NEW

Compact Live Switcher
AV-HSW10

Scheduled for release in the fourth quarter of CY2023

Remote Operation Panel (ROP)

These compact operation panels also support PoE* and IP control



Remote Operation Panel (ROP)
AK-HRP1010GJ
AK-HRP1015GJ*6

*Abbreviation of Power over Ethernet.

Compact operation panel also compatible with Studio Handy Cameras



Remote Operation Panel (ROP)
AK-HRP250GJ

- For more information about controllers, please visit here (https://pro-av.panasonic.net/en/products/compatibility_chart/).
- If you need information about Third Party Products, please visit each products' web site (<https://pro-av.panasonic.net/en/support/>).

Software

Clear, Sharp Video with Auto Tracking of Speaker
Auto Tracking Software Key

AW-SF100
AW-SF200
AW-SF202 2 Additional Licenses
AW-SF203 3 Additional Licenses

Visual Preset Software Key **AW-SF300**

- GUI screen that enables the subject of multiple PTZ Cameras to be switched with a single click of an icon
- Automatic switching of camera angles by voice is possible by linking remote cameras and wireless microphones

NEW

SMPTE ST 2110 Activation Software Key **AW-SFU60***7

Free Software

PTZ Control Center
Controls multiple PTZ cameras from PC

PTZ Virtual USB Driver
Software that converts PTZ camera on your network into Super Web cam

EasyIP Setup Tool Plus
Software for camera detection, network settings and firmware update

PTZ Camera Systems web site (https://pro-av.panasonic.net/en/products/ptz_camera_systems.html)



*1: Activation with the separately sold software key AW-SFU60 is required. *2: As of October 2022, according to our research. *3: NDI* is a new protocol developed by NewTek, Inc. that supports IP video production workflow. NDI* is a registered trademark of NewTek, Inc. in the United States and other countries. 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. *4: Actual output format is UHD (3840 x 2160) 59.94p/50p. *5: The AW-UE150W/K, AW-UE100W/K, AW-UE80W/K, AW-UE50W/K and AW-UE40W/K are the only PTZ Cameras currently supported. *6: Not available in some areas. *7: AW-UE160W/K only.