

Panasonic
CONNECT
















PTZ Camera
15th ANNIVERSARY

PTZ Camera System Lineup



PTZ Camera System Specification Comparison

As of April, 2023

		High-end				Standard		Entry		
				EU and US only model 			 	 	 	 
Model		AW-UE160W/K	AW-UE150W/K	AW-HE145W/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 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")*1 4K MOS	1-type (1") 4K MOS	1-type (1") Full-HD 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. 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	20x	24x	24x	24x	12x	12x	—
i.Zoom		UHD 24x, FHD 32x	UHD 24x, FHD 32x	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	10x	4x	4x	4x
FOV	Horizontal	75.1° (W) to 4.0° (T)	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)	111° (LDC OFF)*2
	Vertical	46.7° (W) to 2.3° (T)	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)	75° (LDC OFF)*2
	Diagonal	82.8° (W) to 4.6° (T)	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)	120° (LDC OFF)*2
Focus		Auto / Manual	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)	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)	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 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	Serial / IP / IR / USB	Serial / IP / IR / USB	Serial / IP / IR / USB	IP/ IR / USB
Power		PoE++*4.5 / XLR	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++)	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*6		Approx. 4.6 kg (10.14 lbs)	Approx. 4.2 kg (9.24 lbs)	Approx. 4.1 kg (9.04 lb)	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	213 mm x 267 mm x 219 mm	169.2 mm x 204.6 mm x 170.6 mm	170 mm x 211 mm x 171 mm	160 mm x 192.1 mm x 166 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*7	Invertible: Ceiling or Desktop*7	Invertible: Ceiling or Desktop*7	Invertible: Ceiling or Desktop*7	Invertible: Ceiling or Desktop*7	Invertible: Ceiling or Desktop*7	Invertible: Ceiling or Desktop*7	Invertible: Ceiling or Desktop*7	Invertible: Ceiling or Desktop*7
PTZ										
Pan Range		± 175°	± 175°	±175°	±175°	±175°	±175°	± 170°	± 170°	±110° (manual)
Tilt Range*8		-30° to 210°	-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*9	Maximum speed during manual: 0.08°/s to 180°/s 3 speed mode installed*9	Maximum speed during manual: 0.08°/s to 180°/s Maximum speed is 180°/s in high-speed mode*9	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*10	Maximum speed during manual: 100°/s Maximum speed during preset: 200°/s*10	—
Operation Noise		NC35 or less (Nomal use) NC25 or less (P/T standstill)	NC35 or less	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		✓	—	—	—	—	—	—	—	—
Video Output										
12G-SDI		✓	✓	—	✓	—	—	—	—	—
3G-SDI		✓*11	✓*11	✓	✓*11	✓*11	✓*11 (AW-UE50W/K)	✓*11,12	✓*11,12	—
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	SMPT E ST 2110	✓*13,14	—	—	—	—	—	—	—	—
	SRT	✓	✓	✓	✓	✓	✓	—	—	—
	NDI**15	✓ (4K)	—	—	—	✓ (4K)	✓ (FHD)	—	—	—
	NDI* HX*16	✓ (NDI* HX version 2, 4K)	✓ (NDI* HX version 2, FHD) (A license must be purchased for use.)	✓ (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)	—	—	—
	RTMP/RTMPS	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RTSP/RTP etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓
Optical Fiber		✓*17	✓*17	—	—	—	—	—	—	—
Control										
Browser (PC/Mac/Mobile) via IP		✓	✓	✓	✓	✓	✓	✓	✓	✓
USB		—	—	—	—	—	✓	✓	✓	✓
Controller / Switcher Supported*18		AW-RP150*19 / AW-RP60*19	AW-RP150 / AW-RP60 AV-UHS500 / AV-HLC100*20	AW-RP150 / AW-RP60 AV-UHS500 / AV-HLC100*20	AW-RP150 / AW-RP60 AV-UHS500 / AV-HLC100*20	AW-RP150 / AW-RP60 AV-UHS500	AW-RP150 / AW-RP60 AV-UHS500	AW-RP150 / AW-RP60 AV-UHS500	AW-RP150 / AW-RP60 AV-UHS500	AW-RP150 / AW-RP60*21
IR Remote Control		AW-RM50G*20 / AW-RM50AG	AW-RM50G*20 / AW-RM50AG	AW-RM50G*20 / AW-RM50AG	AW-RM50G*20 / AW-RM50AG	AW-RM50G*20 / AW-RM50AG	AW-RM50G*20 / AW-RM50AG	AW-RM50G*20 / AW-RM50AG	AW-RM50G*20 / AW-RM50AG	AW-RM50G*20 / AW-RM50AG
Remote Operation Panel (ROP/RCP)*22		AK-HRP1010GJ / AK-HRP1015GJ AK-HRP250GJ*23	AK-HRP1010GJ / AK-HRP1000GJ*20 AK-HRP1015GJ / AK-HRP1005*20 / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1000GJ*20 AK-HRP1015GJ / AK-HRP1005*20 / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1000GJ*20 AK-HRP1015GJ / AK-HRP1005*20 / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1000GJ*20 AK-HRP1015GJ / AK-HRP1005*20 / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1000GJ*20 AK-HRP1015GJ / AK-HRP1005*20 / AK-HRP250GJ	—	—	AK-HRP1010
Software	Fees apply	SMPT E ST 2110 Activation Software Key AW-SFU60	✓	—	—	—	—	—	—	—
		Auto Tracking Software Key AW-SF100/AW-SF200	✓*23	✓	✓	✓	✓	—*24	—*24	✓*25
		Visual Preset Software Key AW-SF300	✓	✓	✓	✓	✓	✓	✓	✓
	Free	PTZ Control Center	✓	✓	✓	✓	✓	✓	✓	✓
		PTZ Virtual USB Driver	✓	✓	✓	✓	✓	✓	✓	✓
EasyIP Setup Tool Plus		✓	✓	✓	✓	✓	✓	✓	✓	✓
Features										
IP Streaming		✓	✓	✓	✓	✓	✓	✓	✓	✓
Image Stabilization		Optical (O.I.S.), Electronic (E.I.S.)*26	Optical	Optical	Optical (O.I.S.), Electronic (E.I.S.)*26	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	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 Precessing Engine)	✓	✓	✓	✓	✓	✓	—	✓
High-Speed Pan / Tilt Mode*27		✓	✓	✓	✓	✓	✓	—	—	—
HD Cropping	Video Output	3G SDI OUT 1	3G SDI OUT	—	3G SDI OUT	—	—	—	—	—
	Cropping zoom	✓	—	—	✓	—	—	—	—	—
AR / VR Systems		FreeD*28	FreeD*28	—	FreeD*28	FreeD*28	—	—	—	—
Privacy Mode		—	—	—	—	—	✓	✓	✓	—
Tally Lamp		✓	✓	✓	✓	✓	✓	✓	✓	✓
Front & Rear Tally / Red, Green, Yellow		Front & Rear Tally / Red, Green, Yellow	Red, Green	Red, Green	Red, Green	Red, Green	Red, Green	Red	Red	Red
USB: Video Conference mode*29		—	—	—	—	—	✓	✓	✓	✓
Waveform Display		✓	—	—	—	—	—	—	—	—
Horizontal Level Gauge		✓	—	—	—	—	—	—	—	—
Built-in Auto Tracking		—	—	—	—	✓*23	✓*23	—	—	—
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: Limited in function when PoE used. *6: Excluding mount bracket. *7: To ensure safety, the unit must be secured using the mount bracket supplied. *8: Depending on the pan or tilt position, the camera may be reflected in the image. *9: Quietness, stationary accuracy, etc., in high-speed mode may vary from normal mode. *10: TILT 140 °/s. *11: HD output is available from Video Format. *12: Embedded audio is not supported. *13: To use SMPTE ST 2110, need activation by SMPTE ST 2110 Support Software Key AW-SFU60 (sold separately). *14: 4K compressed output using JPEG XS will be supported with a firmware update. *15: In this instance, NDI® is used to indicate low latency with high bandwidth NDI®, *16: In this instance, NDI|HX is used to indicate high efficiency low bandwidth NDI|HX. *17: SFP: module purchased separately. Please reference brochure for recommended models. *18: See individual product pages for information on all supported controllers. *19: IP only. *20: Discontinued products. *21: Unlike when other PTZ cameras are connected, the display corresponds to the AW-UE4W/KG menu structure. *22: See individual product pages for information on all supported Remote Operation Panels. *23: Support is planned in future. See the Panasonic website for the latest information (https://pro-av.panasonic.net/en/products/ptz_camera_systems.html). *24: Support is currently under consideration. See the Panasonic website for the latest information (https://pro-av.panasonic.net/en/products/ptz_camera_systems.html). *25: Can be used when the wide-angle camera link function is used. *26: This EIS works for the roll direction. *27: High-speed mode speeds vary by model. *28: 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. *29: 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
20x4K
PROFESSIONAL
HDMI
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
20x4K
PROFESSIONAL
HDMI4K Integrated Camera
AW-UE150W/K

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

Optical Zoom
20xHD 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
24x4K
PROFESSIONAL4K 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
24x4K
PROFESSIONAL4K Integrated Camera
AW-UE80W/K

Standard models suitable for use in online classes and briefing sessions

Optical Zoom
24x4K
PROFESSIONAL4K 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
24x4K
PROFESSIONALNEW
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
12x4K
PROFESSIONAL4K Integrated Camera
AW-UE20W/K

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

Optical Zoom
12xzoom
CertifiedHD 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
PROFESSIONALzoom
Certified4K 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

KAIIROS
Incredible ProductivityIT/IP Platform
KAIIROS*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



NEW

Kairos Core 100
AT-KC100

NEW

Kairos Control
AT-KC10C2

NEW

Kairos Control
AT-KC10C1

NEW

Kairos Creator
AT-SFC10IT/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-RP150Remote Camera Controller
AW-RP60Infrared 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 LicensesVisual 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 PCPTZ Virtual USB Driver
Software that converts PTZ camera on your network into Super Web camEasyIP Setup Tool Plus
Software for camera detection, network settings and firmware updatePTZ 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.