





PTZ Camera System Specification Comparison

As of April, 2023

		High-end				Stan	dard	As of April, 2023 Entry		
		PROFESSIONA	PROFESSIONA	EU and US only model FHD	PROFESSIONAL	PROFESSIONAL	PROFESSIONAL Certified	PROFESSIONAL Certified	FHD zoom Certified	PROFESSIONAL Certified
		HDR.	HDR (III)						99	
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
	fective Pixels Optical Zoom	Approx. 9.62 megapixels 20x	Approx. 20.18 megapixels 20x	Approx. 20.18 megapixels 20x	Approx. 8.49 megapixels 24x	Approx. 8.49 megapixels 24x	Approx. 8.49 megapixels 24x	Approx. 8.46 megapixels 12x	Approx. 8.46 megapixels 12x	Approx. 8.49 megapixels
D	i.Zoom Digital Zoom	UHD 24x, FHD 32x 10x	UHD 24x, FHD 32x 10x	FHD 32x 10x	UHD 28x, FHD 36x 10x	UHD 28x, FHD 36x 10x	UHD 28x, FHD 36x 10x	Approx. 16x 4x	Approx. 16x 4x	- 4x
FOV	Horizontal Vertical	75.1° (W) to 4.0° (T) 46.7° (W) to 2.3° (T)	75.1° (W) to 4.0° (T) 46.7° (W) to 2.3° (T)	75.1° (W) to 4.0° (T) 46.7° (W) to 2.3° (T)	74.1° (W) to 3.3° (T) 46.0° (W) to 1.9° (T)	74.1° (W) to 3.3° (T) 46.0° (W) to 1.9° (T)	74.1° (W) to 3.3° (T) 46.0° (W) to 1.9° (T)	71° (W) to 6° (T) 43° (W) to 3° (T)	71° (W) to 6° (T) 43° (W) to 3° (T)	111° (LDC OFF)* ² 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
Horizo	Focus ontal Resolution	Auto / Manual 4K:1,600 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)	Auto / Manual 4K: 2,000 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)	Auto / Manual HD: 1,000 TV lines Typ (Center area)		Auto / Manual 4K: 1,500 TV lines Typ (Center area)	Auto / Manual 4K: 1,500 TV lines Typ (Center area) HD: 1,000 TV lines Typ (Center area)		Auto / Manual HD: 1,000 TV lines Typ (Center area)	Single focus 4K : 1,400 TV lines Typ (Center area)*3 HD: 900 TV lines Typ (Center area)*3
Stand	dard Sensitivity	F14 / 2,000 lx (Low Light) F11 / 2,000 lx (Normal)	F12 / 2,000 lx (High Sens) F9 / 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)	–	-	— — — — — — — — — — — — — — — — — — —	- (Center area)	–
	Gain	Auto, -6 dB to 12 dB (1 dB step)	Auto, -3 dB to 36 dB (1 dB step)	Auto, -3 dB to 36 dB (1 dB step)	Auto, 0 dB to 36 dB (1 dB step)	Auto, O dB to 36 dB (1 dB step) (Super Gain function installed: 37 dB to 42 dB)	Auto, O 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, O dB to 42 dB (3 dB step)	Auto, O 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
Currei	nt Consumption	PoE++*4 / XLR 5.0 A(XLR)	PoE++* ⁴ / XLR 4.0 A (XLR)	PoE++* ⁴ / XLR 4.0 A (XLR)	PoE++* ⁴ / AC 3.0 A (AC)	PoE++* ⁴ / AC 3.0 A (AC)	PoE+*4 / AC 1.8 A (AC)	PoE+*4 / AC 1.3 A (AC)	PoE+*4 / AC 1.3 A (AC)	PoE*4 / USB 1.0 A (USB)
	Weight*5	1.5 A(PoE++) Approx. 4.6 kg (10.14 lbs)	1.2 A (PoE++) Approx. 4.2 kg (9.24 lbs)	1.2 A (PoE++) Approx. 4.1 kg (9.04 lb)	1.0 A (PoE++) Approx. 2.3 kg (5.06 lb)	1.0 A (PoE++) Approx. 2.0 kg (4.41 lbs)	0.6 A (PoE+) Approx.1.8 kg (3.97 lbs)	0.4 A (PoE+) Approx. 1.9 kg (4.19 lbs)	0.4 A (PoE+) Approx. 1.9 kg (4.19 lbs)	0.2 A (PoE) Approx. 0.5 kg (1.1 lb)
	sions (W x H x D) ount Position	213.0 mm x 277.0 mm x 240.0 mm Invertible: Ceiling or Desktop*6	213 mm x 267 mm x 219 mm Invertible: Ceiling or Desktop*6	213 mm x 267 mm x 219 mm Invertible: Ceiling or Desktop*6	169.2 mm x 204.6 mm x 170.6 mm Invertible: Ceiling or Desktop*6	170.0 mm x 211.0 mm x 171.0 mm Invertible: Ceiling or Desktop*6	160.0 mm x 192.1 mm x 166.0 mm Invertible: Ceiling or Desktop*6	165.1 mm x 176.2 mm x 176.1 mm Invertible: Ceiling or Desktop*6	165.1 mm x 176.2 mm x 176.1 mm Invertible: Ceiling or Desktop*6	123 mm x 131 mm x 139 mm Invertible: Ceiling or Desktop*6
	PTZ Pan Range	± 175°	± 175°	±175°	±175°	±175°	±175°	± 170°	± 170°	±110° (manual)
Т	Filt Range*7	-30° to 210°	-30° to 210°	-30° to 210° Maximum speed during manual: 0.08°/s to 180°/s	-30° to 210°	-30° to 90°	-30° to 90° Maximum speed during manual: 0.08°/s to 180°/s	-30° to 90°	-30° to 90° Maximum speed during manual: 100°/s	±25° (manual)
	n / Tilt Speed	3 speed mode installed*8	3 speed mode installed*8	3 speed mode installed*8	Maximum speed during preset: 300°/s	Maximum speed during preset: 300°/s	Maximum speed during preset: 300°/s	Maximum speed during preset: 200°/s*9	Maximum speed during manual: 1007s Maximum speed during preset: 200°/s*9 NC40 or less (60°/s or less)	_
	eration 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)	-
	PTZ Mechanism	− √ (Built-in optical encoder)	-	-	_	_	_	- -	-	-
	ideo Output									
	3G-SDI	√ √*10	√ √*10					_ 		
	HDMI	√	/	/	✓ ×	✓ ×	(AW-UE50W/K) ✓	✓	· ✓	✓
USB (U	UVC compatible)	-	-	-	-	-	√ USB2.0 Type-C	√ USB2.0 Type-C	√ USB2.0 Type-C	√ USB2.0 Type-C
(5G moblie Route	USB ter with USB Tethering Support)	USB3.0	-	-	-	-	-	-	-	-
	SMPTE ST 2110 SRT	√*12,13 ✓		- _			- ✓	-	_ _	_ _
	NDI®*14	√ (4K)	_	_	√ (4K)	√ (FHD)	-	-	_	-
IP	NDI® HX* ¹⁵	√ (NDI® HX version 2, 4K)	(NDI* HX version 2, FHD)	(NDI® HX version 2, FHD)	(NDI® HX version 2, FHD)	(NDI® HX version 2, FHD)	(NDI* HX version 2, FHD)	-	-	-
	RTMP/RTMPS	✓	(A license must be purchased for use.)	(A license must be purchased for use.)	/	/	(A license must be purchased for use.)	√	✓	✓
0	RTSP/RTP etc. Optical Fiber	√ √*16	√ √*16	_	_	_	✓ -	✓ -	✓ -	✓ -
Browser (Pe	Control C/Mac/Mobile) via IP	√	✓	✓	✓	√	√	√	✓	√
Cambrallar / 6	USB	- AMA DD450#19 / AMA DD50#19	– AW-RP150 / AW-RP60	– AW-RP150 / AW-RP60	– AW-RP150 / AW-RP60	– AW-RP150 / AW-RP60	AW-RP150 / AW-RP60	AW-RP150 / AW-RP60	√ AW-RP150 / AW-RP60	√ ANA BRASO (ANA BRASO*20
Controller / Swhitcher Supported*17 IR Remote Control		AW-RP150*18 / AW-RP60*18 AW-RM50G*19 / AW-RM50AG	AV-UHS500 / AV-HLC100* ¹⁹ AW-RM50G* ¹⁹ / AW-RM50AG	AV-UHS500 / AV-HLC100* ¹⁹ AW-RM50G* ¹⁹ / AW-RM50AG	AV-UHS500 / AV-HLC100* ¹⁹ AW-RM50G* ¹⁹ / AW-RM50AG	AV-UHS500 AW-RM50G* ¹⁹ / AW-RM50AG	AV-UHS500 AW-RM50G* ¹⁹ / AW-RM50AG	AV-UHS500 AW-RM50G* ¹⁹ / AW-RM50AG	AV-UHS500	AW-RP150 / AW-RP60* ²⁰ AW-RM50G* ¹⁹ / AW-RM50AG
Remote (R	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-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
	SMPTE ST 2110 Activation Software Key AW-SFU60	✓	-	-	-	-	-	-	-	-
Fees apply	Auto Tracking Software Key AW-SF100/AW-SF200	√* ²²	✓	✓	✓	✓	✓	-	_	√*23
Software	Visual Preset Software Key AW-SF300	✓	✓	✓	✓	✓	✓	✓	✓	V
Free	PTZ Control Center PTZ Virtual USB Driver	√ √	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	√ √	✓ ✓	✓ ✓
	EasyIP Setup Tool Plus Features	√	✓	✓	✓	√	√	V	✓	V
IF	P Streaming ge Stabilization	✓ Optical (O.I.S.), Electronic (E.I.S.)*24	√ Optical	√ Optical	Optical (O.I.S.), Electronic (E.I.S.)*24	√ Optical	√ Optical	√ -	✓ -	√ -
Nigh	t Mode (for IR)	V	· /		√	✓ ✓	-	-	-	-
	Range Stretch (DRS) nput / Embedding	√ (XLR x 2)	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	_
lı	nternal Mic	(XLR x 2) -	_	_	_	-	_	_	_	(Audio On/Off: Available)
Color Tem	perature Adjustment	√	V	V	V	V	√ Up to 100	- Up to 100	- Lin to 100	-
Presets High Dynamic Range (HDR)		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 –
	V-Log	(support BT.2020) √	(support BT.2020)	(support BT.2020)	-	-	-	_	-	
	anless Design t-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	_	√ -	_	√ -
Optica	ll Low-pass Filter Genlock	√ √	- /	- /	- /	- -	-	-	-	-
Digital No	oise Reduction (DNR)	(Equipped with New Image Precessing Engine)	✓	✓	✓	✓	✓ /	V	✓	✓
High-Speed Pan / Tilt Mode*25		√ ✓	/	/	√ √	√	√	-	-	-
HD Cropping AR / VR Systems		(Cropping zoom is available.) FreeD*26	√ FreeD*26	-	(Cropping zoom is available.) FreeD*26	- FreeD*26		-	-	-
P	rivacy Mode	√ ./	-	-	√ /	√ /	<i>\lambda</i>	√	√ √	
Tally Lamp USB: Video Conference mode*27		Front & Rear Tally / Red, Green, Yellow	Red, Green	Red, Green	Red, Green	Red, Green	Red, Green	√ Red	Red	√ Red √
Wav	veform Display	√			-		_	_	_	-
	ontal Level Gauge in Auto Tracking	<u>√</u> -	-	-	-	_ ✓*22	_ ✓*22	-	-	-
	MSRP									
Wav Horizo Built-i	veform Display ontal Level Gauge in Auto Tracking MSRP	- - - -	- - -	- - -	- - -	- - - /*22	- -	- - -	- - -	vi

[•]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: HDMl 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* Is used to indicate high efficiency low bandwidth NDI*, *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 for using Zoom. When using this mode, the tally lamp lights blue.

4K / HD Integrated Camera

High-end



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

4K Integrated Camera

AW-UE160W/K

High-end

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



4K Integrated Camera AW-UE150W/K

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



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



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



4K

24x

4K Integrated Camera AW-UE80W/K

Standard models suitable for use in online classes and briefing sessions



24x

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



24_x **IP65**

4K Outdoor Integrated Camera AW-UR100

Scheduled for release in the third quarter of CY2023

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

12x

12x



4K Integrated Camera AW-UE20W/K

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



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 Integrated Camera AW-UE4WG/KG

IT/IP Platform

KAIROS*5

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













KAIROS Kairos Creator

Kairos Control Kairos Control AT-KC10C2 AT-KC10C1

AT-SFC10

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

Kairos Core 100

AT-KC100

Optional Products / Software

Kairos Core 200

AT-KC200

Scheduled for release

in June 2023

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**

Kairos Core 2000

Scheduled for release in

the third quarter of CY2023

AT-KC2000

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



distribution and webinars

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

Broadcast-quality video production with 10bit

processing and easy operation. Active in streaming



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-ay.panasonic.net/en/support/)

Software



Auto Tracking Software Key

AW-SF100 AW-SF200

AW-SF202 2 Additional Licenses

AW-SF203 3 Additional Licenses

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

• GUI screen that enables the subject of multiple PTZ

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

Visual Preset Software Key AW-SF300

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-UE100W/K, AW-UE50W/K and AW-UE40W/K are the only PTZ Cameras currently supported. *6: Not available in some