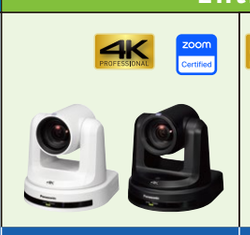
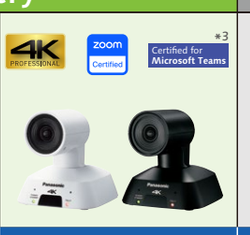
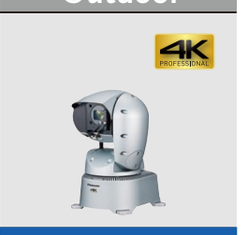
Panasonic

PTZ Camera System Lineup

PTZ Camera System Specification Comparison

As of July, 2025

		High-end				Standard		Entry		Outdoor
				EU and US only model			AW-UE50/40 are NDI® and Zoom certified.			
Model		**AW-UE160W/K**	**AW-UE150AW/AK**	**AW-HE145W/K**	**AW-UE100W/K**	**AW-UE80W/K**	**AW-UE50W/K AW-UE40W/K AW-UE30W/K**	**AW-UE20W/K**	**AW-UE4WG/KG**	**AW-UR100**
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)**	**Silver**
General										
Sensor		1-type (1")*4 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	1/2.5-type (1/2.5") 4K MOS	1/2.5-type 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. 8.49 megapixels	Approx. 8,29 megapixels
Optical Zoom		20x	20x	20x	24x	24x	24x (AW-UE50, AW-UE40) 20x (AW-UE30)	12x	–	24x
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	–	UHD 28x, FHD 36x
Digital Zoom		10x	10x	10x	10x	10x	10x	4x	4x	10x
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)	111° (LDC OFF)*5	74.1° (W) to 3.3° (T)
	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)	75° (LDC OFF)*5	46.0° (W) to 1.9° (T)
	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)	120° (LDC OFF)*5	81.8° (W) to 3.8° (T)
Focus		Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Single focus	Auto / Manual
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)	4K : 1,400 TV lines Typ (Center area)*6 HD: 900 TV lines Typ (Center area)*6	4K: 1,500 TV lines Typ (Center area)
Standard 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)	–	–	–	–	–
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, -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 36 dB(1 dB step) (Super Gain function equipped: 37 dB to 42 dB)
Control		Serial / IP / IR	Serial / IP / IR	Serial / IP / IR	Serial / IP / IR	Serial / IP / IR	Serial / IP / IR / USB	Serial / IP / IR / USB	IP/ IR / USB	Serial / IP / IR
Power		PoE++*7 / XLR	PoE++*7 / XLR	PoE++*7 / XLR	PoE++*7 / AC	PoE++*7 / AC	PoE+*7 / AC	PoE+*7 / AC	PoE*7 / USB	PoE++*7 / XLR
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+)	1.0 A (USB) 0.2 A (PoE)	3.1 A to 5.5 A (DC) 1.2 A (PoE++)
Weight*8		Approx. 4.6 kg (10.14 lbs)	Approx. 4.3 kg (9.48 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. 0.5 kg (1.1 lb)	Approx. 9.0 kg (19.84 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	170.0 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	123 mm x 131 mm x 139 mm	258.0 mm x 367.0 mm x 392.0 mm
Mount Position		Invertible: Ceiling or Desktop*9	Invertible: Ceiling or Desktop*9	Invertible: Ceiling or Desktop*9	Invertible: Ceiling or Desktop*9	Invertible: Ceiling or Desktop*9	Invertible: Ceiling or Desktop*9	Invertible: Ceiling or Desktop*9	Invertible: Ceiling or Desktop*9	Invertible: Ceiling or Desktop*9
PTZ										
Pan Range		± 175°	± 175°	±175°	±175°	±175°	±175°	± 170°	±110° (manual)	±175°
Tilt Range*10		-30° to 210°	-30° to 210°	-30° to 210°	-30° to 210°	-30° to 90°	-30° to 90°	-30° to 90°	±25° (manual)	-30°to 210°
Pan / Tilt Speed		Maximum speed during manual: 0.08°/s to 180°/s 3 speed mode installed*11	Maximum speed during manual: 0.08°/s to 180°/s 3 speed mode installed*11	Maximum speed during manual: 0.08°/s to 180°/s 3 speed mode installed*11	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*12	–	Maximum speed during manual: 0.08°/s to 180°/s 3 speed mode installed*11
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)	–	NC45 or less
New Direct Drive System		–	–	–	✓	✓	✓	–	–	–
New PTZ Mechanism		✓ (Built-in optical encoder)	–	–	–	–	–	–	–	–
Video Output										
12G-SDI		✓	✓	–	✓	–	–	–	–	✓
3G-SDI		✓*13	✓*13	✓*13	✓*13	✓*13	✓*13 (AW-UE50W/K)	✓*13,14	–	✓*13
HDMI		✓	✓	✓	✓	✓	✓	✓	✓	–
USB (UVC compatible)		–	–	–	–	–	✓ USB2.0 Type-C	✓ USB2.0 Type-C	✓ USB2.0 Type-C	–
USB (5G moblie Router with USB Tethering Support)		✓ USB3.0	–	–	–	–	–	–	–	–
IP	**SMPTE ST 2110**	✓*2	–	–	–	–	–	–	–	–
	SRT	✓	✓	✓	✓	✓	✓	–	–	✓
	NDI®*15	NDI® High Bandwidth NDI® HX2 NDI® embedded bridge	NDI® High Bandwidth NDI® HX2	NDI® HX2	NDI® High Bandwidth NDI® HX2	NDI® High Bandwidth NDI® HX2	NDI® HX2 (AW-UE50, AW-UE40)	–	–	NDI® High Bandwidth NDI® HX2
	RTMP/RTMPS	✓	✓	✓	✓	✓	✓	✓	✓	✓
	RTSP/RTP etc.	✓	✓	✓	✓	✓	✓	✓	✓	✓
Optical Fiber		✓*16	✓*16	–	–	–	–	–	–	✓*16
Control										
Browser (PC/Mac/Mobile) via IP		✓	✓	✓	✓	✓	✓	✓	✓	✓
USB		–	–	–	–	–	✓	✓	✓	–
Controller Compact Swhitcher Supported*7		AW-RP150 / AW-RP60 AV-UHS500 / AV-HSW10	AW-RP150 / AW-RP60 AV-UHS500 / AV-HSW10	AW-RP150 / AW-RP60 AV-UHS500 / AV-HSW10	AW-RP150 / AW-RP60 AV-UHS500 / AV-HSW10	AW-RP150 / AW-RP60 AV-UHS500 / AV-HSW10	AW-RP150 / AW-RP60 AV-UHS500 / AV-HSW10	AW-RP150 / AW-RP60 AV-UHS500 / AV-HSW10	AW-RP150 / AW-RP60*17 AV-HSW10	AW-RP150 / AW-RP60 AV-UHS500 / AV-HSW10
IR Remote Control*7		AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	–
Remote Operation Panel (ROP)*7 *18		AK-HRP1010GJ / AK-HRP1015GJ AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1015GJ AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1015GJ AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1015GJ AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1015GJ AK-HRP250GJ	AK-HRP1010GJ/ AK-HRP1015GJ AK-HRP250GJ*19	–	AK-HRP1010GJ / AK-HRP250GJ	AK-HRP1010GJ / AK-HRP1015GJ AK-HRP250GJ
Software*7										
Media Production Suite	**Basic Functions**	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Auto Tracking	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓*20 (Additional Fee)	–	✓ (Additional Fee)
	Advanced Auto Framing	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	–	–	–	✓ (Additional Fee)
	Visual Preset	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)
	Video Mixer	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)
SMPTE ST 2110 Activation Software Key AW-SFU60		✓ (Additional Fee)	–	–	–	–	–	–	–	–
PTZ Virtual USB Driver		✓	✓	✓	✓	✓	✓	✓	✓	✓
Features										
IP Streaming		✓	✓	✓	✓	✓	✓	✓	✓	✓
Image Stabilization		Optical (O.I.S.), Electronic (E.I.S.)*21	Optical	Optical	Optical (O.I.S.), Electronic (E.I.S.)*21	Optical	Optical	–	–	Optical (O.I.S.), Electronic (E.I.S.)*21, D.I.S.S.
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)	✓ (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	–	–	–	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*22		✓	✓	✓	✓	✓	✓	–	–	✓
HD Cropping		✓ (Cropping zoom is available.)	✓ (Cropping zoom is available.)	–	✓ (Cropping zoom is available.)	–	–	–	–	✓
AR / VR Systems		FreeD*23	FreeD*23	–	FreeD*23	FreeD*23	–	–	–	FreeD*23
Privacy Mode		✓	✓	–	✓	✓	✓	✓	–	✓
Tally Lamp		✓ Front & Rear Tally / Red, Green, Yellow	✓ Red, Green, Yellow	✓ Red, Green	✓ Red, Green	✓ Red, Green	✓ Red, Green	✓ Red	✓ Red	–
USB: Video Conference mode*24		–	–	–	–	–	✓	✓	✓	–
Waveform Display		✓	–	–	–	–	–	–	–	–
Horizontal Level Gauge		✓	✓	–	–	–	–	–	–	✓
Built-in Auto Tracking		–	✓	–	–	✓	✓	–	–	–
Auto Framing feature*25		✓	–	–	–	–	–	–	–	–
MSRP										

*1: JPEG logo by Masahito TAKIZAWA is licensed under Creative Commons Attribution-NoDerivatives 4.0 International Public License with disclaimer of warranties.The license can be found at https://jpeg.org/contact.html *2: To use SMPTE ST 2110, activation is needed with the Software Key AW-SFU60 (sold separately). *3: Microsoft and Microsoft Teams are trademarks or registered trademarks of Microsoft Corporation in the United States and/or other countries. *4: Effective size. *5: LDC is the abbreviation for Lens Distortion Correction. *6: HDMI output. *7: See the Panasonic website for information on Optional Products / Software (https://pro-av.panasonic.net/en/support/#Compatibility-Chart). *8: Excluding mount bracket. *9: To ensure safety, the unit must be secured using the mount bracket supplied. *10: Depending on the pan or tilt position, the camera may be reflected in the image. *11: Quietness, stationary accuracy, etc., in high-speed mode may vary from normal mode. *12: TILT 140 ° /s. *13: HD output is available from Video Format. *14: Embedded audio is not supported. *15: NDI® is a video connectivity technology and is registered as a trademark by Vizrt NDI AB in the United States and other countries. *16: SFP+ module purchased separately. Please reference brochure for recommended models. *17: Unlike when other PTZ Cameras are connected, the display corresponds to the AW-UE4WG/KG menu structure. *18: IP only. *19: Only AW-UE50W/K, AW-UE40W/K. *20: The AW-UE20W/K have certain limitations in tracking performance compared to other supported models. We recommend taking advantage of our 90-day free trial to evaluate their performance in your actual operating environment before making a purchase decision. *21: This EIS works for the roll direction. *22: High-speed mode speeds vary by model. *23: 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. *24: USB:Video Conference mode is a specific mode for using Zoom. When using this mode, the tally lamp lights blue. *25: May require camera firmware or Media Production Suite update.

4K / HD Integrated Camera

High-end

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

4K Integrated Camera
AW-UE160W/K

New Standard for Professional Video Expressiveness and Operational Versatility

NEW
4K Integrated Camera
AW-UE150AW/AK

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

HD Integrated Camera
AW-HE145W/K
•EU and US only model

4K 60p/50p*3 NDI® High Bandwidth & 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 Integrated Camera
AW-UE80W/K

Standard models suitable for use in online classes and briefing sessions

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

4K Integrated Camera
AW-UE30W/K

Entry

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

4K Integrated Camera
AW-UE20W/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
*4
Certified for **Microsoft Teams**

For outdoor use

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

4K Outdoor Integrated Camera
AW-UR100

IT/IP Platform KAIROS*5

KAIROS
Incredible Productivity

- **GPU/CPU-Based** Live Video Production Platform with **High Scalability**
- **Flexible** I/O Numbers, Video Formats, IP protocols and Basebands
- **Freely Expression** by **Unlimited** Number of MEs and Output Aspect Ratio

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

Workflow Tools / Software

Multi Purpose Camera

Box-style 4K camera with high-sensitivity, large-format sensor supporting PTZ common control protocols

NEW 4K Multi Purpose Camera
AW-UB50

NEW 4K Multi Purpose Camera
AW-UB10

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

Compact Live Switcher
AV-HSW10

Remote Operation Panel (ROP)

These compact operation panels also support PoE* and IP control
*Abbreviation of Power over Ethernet.

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

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

Media Production Suite Free

Software Platform for Smart Operation and Rich Expression

Media Production Suite web site
(https://pro-av.panasonic.net/en/software/mps/)

Basic Functions

Device View Free
Manages network settings and firmware updates

PTZ Control Free
Controls multiple PTZ cameras from PC

Plug-ins (Additional Fee)

Auto Tracking
Automatically tracks speaker and captures clear images
Auto Tracking Software Key (license for one camera) **AW-SF100**
Auto Tracking Software Key (license for multiple cameras)
AW-SF200 / AW-SF202 / AW-SF203
(2 additional licenses) (3 additional licenses)

Visual Preset
Switches subject of multiple PTZ cameras with a single click
Visual Preset Software Key **AW-SF300**

Video Mixer
Diverse video compositions created easily with PC
Video Mixer Software Key **AW-SF400**

NEW **Advanced Auto Framing**
Automatic high-quality, smartly framed video
Advanced Auto Framing Software Key
- **AW-SF501** (perpetual license for one framing camera)
- **AW-SF503** (perpetual license for three framing cameras)
- **AW-SF501W** (7-day limited license for one framing camera)
- **AW-SF503W** (7-day limited license for three framing cameras)
- **AW-SF501M** (30-day limited license for one framing camera)
- **AW-SF503M** (30-day limited license for three framing cameras)

*This product is available in limited regions. Please check with your local sales company for availability.

PTZ Virtual USB Driver Free
Converts PTZ camera on your network into Super Web cam
SMPTE ST 2110 Activation Software Key*7 **AW-SFU60**

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

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■ Panasonic Entertainment & Communication Co., Ltd. Imaging Solution Business Division 2-15 Matsuba-cho, Kadoma, Osaka 571-8503 Japan Panasonic web site (https://pro-av.panasonic.net/en/)

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