Panasonic

PTZ Camera System Lineup

PTZ Camera System Specification Comparison

As of October, 2024

	High-end				Standard		Entry		Outdoor
Model	AW-UE160W/K	AW-UE150W/K	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	4x	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)	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. 4.2 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. 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 mobile Router with USB Tethering Support)	✓ USB3.0	–	–	–	–	–	–	–	–
IP SMPTE ST 2110	✓*2	–	–	–	–	–	–	–	–
SRT	✓	✓	✓	✓	✓	✓	–	–	–
NDI®*15	NDI® High Bandwidth NDI® HX2	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 / Switchter Supported*7	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 AV-UHS500	AW-RP150 / AW-RP60 AV-UHS500*17	AW-RP150 / AW-RP60 AV-UHS500	AW-RP150 / AW-RP60*18	AW-RP150 / AW-RP60 AV-UHS500
IR Remote Control*7	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	AW-RM50AG	
Remote Operation Panel (ROP/RCP)*7*19	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*17/ AK-HRP1015GJ*17 AK-HRP250GJ*17	–	AK-HRP1010GJ / AK-HRP250GJ	AK-HRP1010GJ*17/ AK-HRP1015GJ*17 AK-HRP250GJ*17
Software*7									
Media Production Suite Basic Functions	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auto Tracking Software Key AW-SF100/AW-SF200	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	–	–	–
Advanced Auto Framing Software Key	✓ (Additional Fee)	✓ (Additional Fee)	–	✓ (Additional Fee)	✓ (Additional Fee)	–	–	–	–
Visual Preset Software Key AW-SF300	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)	✓ (Additional Fee)
Video Mixer Software Key AW-SF400G	✓ (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.)*20	Optical	Optical	Optical (O.I.S.), Electronic (E.I.S.)*20	Optical	Optical	–	–	Optical (O.I.S.), Electronic (E.I.S.)*20, D.I.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*21	✓	✓	✓	✓	✓	–	–	–	✓
HD Cropping	✓ (Cropping zoom is available.)	✓	–	✓ (Cropping zoom is available.)	–	–	–	–	–
AR / VR Systems	FreeD*22	FreeD*22	–	FreeD*22	FreeD*22	–	–	–	FreeD*22
Privacy Mode	✓	–	–	–	✓	✓	✓	–	✓
Tally Lamp	Front & Rear Tally / Red, Green, Yellow	Red, Green	Red, Green	Red, Green	Red, Green	Red, Green	Red	Red	–
USB: Video Conference mode*23	–	–	–	–	–	✓	✓	✓	–
Waveform Display	✓	–	–	–	–	–	–	–	–
Horizontal Level Gauge	✓	–	–	–	–	–	–	–	✓
Built-in Auto Tracking	–	–	–	–	✓	✓	–	–	–
Auto Framing feature*24	✓*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.com/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: AW-UE30W/K: TBD. *18: Unlike when other PTZ Cameras are connected, the display corresponds to the AW-UE4WG/KG menu structure. *19: IP only. *20: This EIS works for the roll direction. *21: High-speed mode speeds vary by model. *22: 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. *23: USB:Video Conference mode is a specific mode for using Zoom. When using this mode, the tally lamp lights blue. *24: May require camera firmware or Media Production Suite update. *25: Scheduled for release in CY2025 first quarter.

4K / HD Integrated Camera

High-end

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

Optical Zoom **20x**
4K PROFESSIONAL HDR
ST 2110
JPEG XS *1*2
NDI CERTIFIED

4K Integrated Camera
AW-UE160W/K

4K 60p/50p*3 output, high-magnification zoom and wide-angle shooting for flexible video production

Optical Zoom **20x**
4K PROFESSIONAL HDR
NDI CERTIFIED

4K Integrated Camera
AW-UE150W/K

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

Optical Zoom **20x**
NDI CERTIFIED

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

Optical Zoom **24x**
4K PROFESSIONAL
NDI CERTIFIED

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
NDI CERTIFIED

4K Integrated Camera
AW-UE80W/K

Standard models suitable for use in online classes and briefing sessions

Optical Zoom **24x**
4K PROFESSIONAL
NDI CERTIFIED
zoom Certified

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

Optical Zoom **20x**
4K PROFESSIONAL

4K Integrated Camera
AW-UE30W/K

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 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
*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

Optical Zoom **24x**
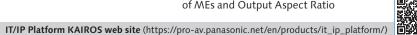4K PROFESSIONAL
IP65

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

4K PROFESSIONAL HDR
ST 2110

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

4K PROFESSIONAL HDR
NEW 4K Multi Purpose Camera
AW-UB50
Scheduled for release in CY2024 fourth quarter

4K PROFESSIONAL HDR
NEW 4K Multi Purpose Camera
AW-UB10
Scheduled for release in CY2024 fourth quarter

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 (2 additional licenses)
AW-SF203 (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

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

NEW **Advanced Auto Framing**
Automatic high-quality, smartly framed video
Advanced Auto Framing Software Key
Scheduled for release in CY2025 second quarter

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