

## PTZ Camera System Lineup



# PTZ Camera System Specification Comparison

As of November,2020

								
BASE MODEL								
NDI® HX (NDI® N-Series Model)	— <sup>*1</sup>	— (Standard Equipment)	AW-UN70W/K	— <sup>*1</sup>	AW-HN40HW/HK	AW-HN38HW/HK	—	
Camera Body Color	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)	Black (K) or White (W)	Black (K) or White (W)	
GENERAL								
Sensor	1-type 4K MOS	1/2.5-type 4K MOS	1/2.3-type MOS	1/2.3-type MOS	1/2.3-type MOS		1/2.5-type MOS	
Optical Zoom	20x	24x	20x	20x	30x	22x	—	
i.Zoom	UHD 24x, FHD 32x	UHD 28x, FHD 36x	UHD 22x, FHD 30x	FHD 30x	FHD 40x	FHD 30x	—	
Digital Zoom	10x	10x	12x	12x	16x		4x	
F Value	F2.8 to F4.5	F1.8 to F4.0	F1.8 to F3.6	F1.8 to F3.6	F1.6 to F4.7	F1.6 to F4.3	F2.4	
Focal Length	f=8.8 mm to 176.0 mm (35 mm equivalent: 24.5 mm to 490.0 mm)	f=4.12 mm to 98.9 mm (35 mm equivalent: 25.0 mm to 600.0 mm)	f=4.08 mm to 81.6 mm (35 mm equivalent: 29.5 mm to 612.0 mm)	f=4.08 mm to 81.6 mm (35 mm equivalent: 29.5 mm to 612.0 mm)	f=4.3 mm to 129 mm (35 mm equivalent: 31.6 mm to 962.0 mm)	f=4.3 mm to 94.6 mm (35 mm equivalent: 31.6 mm to 705.0 mm)	f=2.21 mm (35 mm equivalent: 13.4 mm)	
FOV	Horizontal	75.1° (W) to 4.0° (T)	74.1° (W) to 3.3° (T)	65.1° (W) to 3.26° (T) <sup>*2</sup>	65.1° (W) to 3.26° (T) <sup>*2</sup>	61.6° (W) to 2.10° (T) <sup>*3</sup>	61.6° (W) to 2.9° (T) <sup>*3</sup>	
	Vertical	46.7° (W) to 2.3° (T)	46.0° (W) to 1.9° (T)	39.5° (W) to 1.83° (T) <sup>*2</sup>	39.5° (W) to 1.83° (T) <sup>*2</sup>	37.0° (W) to 1.18° (T) <sup>*3</sup>	37.0° (W) to 1.6° (T) <sup>*3</sup>	
	Diagonal	82.8° (W) to 4.6° (T)	81.8° (W) to 3.8° (T)	72.4° (W) to 3.74° (T) <sup>*2</sup>	72.4° (W) to 3.74° (T) <sup>*2</sup>	68.7° (W) to 2.42° (T) <sup>*3</sup>	68.7° (W) to 3.3° (T) <sup>*3</sup>	
Focus	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual	Auto/Manual		Single focus	
Horizontal Resolution	4K: 2000 TV lines Typ (Center area) HD: 1000 TV lines Typ (Center area)	1500 TV lines Typ (Center area)	4K: 1300 TV lines Typ (Center area) HD: 1000 TV lines Typ (Center area)	1000 TV lines Typ (Center area)	1000 TV lines Typ (Center area)		4K: 1400 TV lines Typ (Center area) <sup>*5</sup> HD: 900 TV lines Typ (Center area) <sup>*5</sup>	
Minimum Illumination	2 lx	3 lx	0.35 lx	0.35 lx	0.35 lx		4 lx	
Gain	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 48 dB (3 dB step)	Auto, 0 dB to 48 dB (3 dB step)	Auto, 0 dB to 48 dB (3 dB step)		Auto, 0 dB to 42 dB (3 dB step)	
S/N	60 dB or more	60 dB (When [Shooting Mode] is [Normal])	54 dB (standard)	54 dB (standard)	54 dB (standard)		54 dB or more	
Control	Serial/IP/IR	Serial/IP/IR	Serial/IP/IR	Serial/IP/IR	Serial/IP/IR		IP/IR	
Power	PoE++ or XLR	PoE++ or AC	PoE+ or AC	PoE+ or AC	PoE+ or AC		PoE/USB	
Current Consumption	4.0 A (XLR) 1.2 A (PoE++) <sup>*6</sup>	3.0 A (AC) 1.0 A (PoE++) <sup>*6</sup>	1.3 A (AC) 0.5 A (PoE+) <sup>*7</sup>	1.3 A (AC) 0.5 A (PoE+) <sup>*7</sup>	1.2 A (AC) 0.4 A (PoE+) <sup>*7</sup>		1.0 A (USB) 0.2 A (PoE) <sup>*8</sup>	
Weight	9.24 lbs	5.06 lb	3.30 lbs	3.30 lbs	3.30 lbs		1.1 lbs	
Dimensions (W x H x D) <sup>*9</sup>	213 mm x 267 mm x 219 mm	169.2 mm x 204.6 mm x 170.6 mm	160 mm x 186 mm x 179mm	160 mm x 186 mm x 179 mm	160 mm x 186 mm x 166 mm		123 mm x 131mm x 139 mm	
Mount Position	Invertible: Ceiling or Desktop <sup>*10</sup>	Invertible: Ceiling or Desktop <sup>*10</sup>	Invertible: Ceiling or Desktop <sup>*10</sup>	Invertible: Ceiling or Desktop <sup>*10</sup>	Invertible: Ceiling or Desktop <sup>*10</sup>		Invertible: Ceiling or Desktop <sup>*10</sup>	
PTZ								
Pan Range	±175°	±175°	±175°	±175°	±175°		±110° (manual)	
Tilt Range	-30° to 210° <sup>*11</sup>	-30° to 210° <sup>*11</sup>	-30° to 90° <sup>*11</sup>	-30° to 90° <sup>*11</sup>	-30° to 90° <sup>*11</sup>		±25° (manual)	
Pan/Tilt Speed	Minimum speed 0.08°/s, maximum speed 60°/s or higher Maximum speed is 180°/s in high-speed mode <sup>*12</sup>	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: 90°/s	Maximum speed during preset: 300°/s Maximum speed during manual: 90°/s	Maximum speed during preset: 300°/s Maximum speed during manual: 90°/s		—	
Operation Noise	NC35 or Less	NC25 or Less	NC35 or Less	NC35 or Less	NC35 or Less		—	
New Direct Drive System	—	✓	—	—	—		—	
VIDEO OUTPUT								
12G-SDI	✓	✓	—	—	—		—	
3G-SDI	✓ (Cropping is available.)	✓ (Cropping is available.)	✓	✓	—		—	
HD-SDI	✓ <sup>*13</sup>	✓ <sup>*13</sup>	✓	✓	✓ (Only for SW/SK)	—	—	
HDMI	✓	✓	✓	✓	✓ (Only for HW/HK)	✓	✓	
Composite	—	—	—	—	—		—	
USB	—	—	✓	✓	✓		✓	
IP	SRT <sup>*14</sup>	—	✓	—	—		—	
	High Bandwidth NDI <sup>®</sup> <sup>*15</sup>	—	✓	—	—		—	
	NDI <sup>®</sup>  HX	✓ (BASE Model requires to be upgraded.)	✓	✓ (BASE Model requires to be upgraded.)	✓ (BASE Model requires to be upgraded.)	✓ (BASE Model requires to be upgraded.)		—
	RTMP/RTMPS <sup>*16</sup>	✓	✓	—	—	—		✓
RTSP <sup>*17</sup> /RTP <sup>*18</sup> etc.	✓	✓	✓	✓	✓		✓	
Optical Fiber	✓ <sup>*19</sup>	—	—	—	—		—	
CONTROL								
Browser (PC/Mac/Mobile) via IP	✓	✓	✓	✓	✓		✓	
USB	—	—	✓	✓	✓		✓	
VISCA	—	—	✓	✓	✓		—	
Auto Tracking/Auto Tracking Server	AW-SF100/AW-SF200	AW-SF100/AW-SF200	AW-SF100/AW-SF200	AW-SF100/AW-SF200	AW-SF100/AW-SF200		AW-SF100/AW-SF200	
IOS app (PTZ Cntrl)+AW-HEA10W/K <sup>*20</sup>	✓	— <sup>*21</sup>	✓	✓	✓		—	
Controller/Switcher Supported <sup>*22</sup>	AW-RP150GJ/ AW-RP60GJ/AV-HLC100	AW-RP150GJ/ AW-RP60GJ/AV-HLC100 <sup>*23</sup>	AW-RP150GJ/ AW-RP60GJ/AV-HLC100	AW-RP150GJ/ AW-RP60GJ/AV-HLC100	AW-RP150GJ/ AW-RP60GJ/AV-HLC100		AW-RP60GJ <sup>*24</sup>	
IR Remote Control	AW-RM50G	AW-RM50G	AW-RM50G	AW-RM50G	AW-RM50G		AW-RM50G	
Remote Operation Panel (ROP/RCP) <sup>*25</sup>	AK-HRP1000GJ	— <sup>*26</sup>	AK-HRP200G AK-HRP1000GJ	AK-HRP1000GJ	AK-HRP200G AK-HRP1000GJ		—	
PTZ Control Center	✓	✓	✓	✓	✓		✓	
PTZ Virtual USB Driver	✓	✓	✓	✓	✓		✓	
FEATURES								
IP Streaming	✓	✓	✓	✓	✓		✓	
Image Stabilization	Optical	Optical(O.I.S.), Electronic(E.I.S.) <sup>*27</sup>	Optical, Electronic	Optical, Electronic	Electronic		—	
Night Mode (for IR)	✓	✓	✓	✓	✓		—	
Dynamic Range Stretch (DRS)	✓	✓	✓	✓	✓		✓	
Audio Input/Embedding	✓	✓	✓	✓	✓		—	
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	
microSD Card Recording	—	—	✓	✓	✓		—	
High Dynamic Range (HDR)	✓	—	—	—	—		—	
Fanless Design	—	—	✓	✓	✓		✓	
Built-in ND Filters	Through, 1/4, 1/16, 1/64	Through, 1/4, 1/16, 1/64	Auto <sup>*28</sup> , Through, 1/4, 1/16, 1/64	Auto <sup>*28</sup> , Through, 1/4, 1/16, 1/64	—		—	
Genlock	✓	✓	✓	✓	—		—	
Digital Noise Reduction (DNR)	✓	✓	✓	✓	✓		✓	
High-Speed Pan/Tilt Mode	✓	✓	—	—	—		—	
HD Cropping in 4K Mode	✓	✓ (Cropping zoom is available.)	—	—	—		—	
AR/VR Systems	FreeD <sup>*29</sup>	FreeD <sup>*29</sup>	—	—	—		—	

● NDI<sup>®</sup> is a new live video production workflow support protocol for IP use developed by NewTek in the United States.  
<sup>\*1</sup>: Available to upgrade from BASE Model. Contact your local Panasonic vendor for further information and see NewTek website(<https://store.newtek.com/index.php/panasonicndihxlicense.html>) for more detail. <sup>\*2</sup>: When OIS is OFF/Model1. <sup>\*3</sup>: Image Stabilizer OFF. <sup>\*4</sup>: LDC is the abbreviation for Lens Distortion Correction. <sup>\*5</sup>: HDMI output. <sup>\*6</sup>: Abbreviation of Power over Ethernet Plus Plus. Conforms to IEEE802.3bt. <sup>\*7</sup>: Abbreviation of Power over Ethernet. <sup>\*8</sup>: Abbreviation of Power over Ethernet. <sup>\*9</sup>: Excluding protrusions, cable cover, mount bracket. <sup>\*10</sup>: To ensure safety, the unit must be secured using the mount bracket supplied. <sup>\*11</sup>: Depending on the pan or tilt position, the camera may be reflected in the image. <sup>\*12</sup>: Quietness, stationary accuracy, etc., in high-speed mode may vary from normal mode. <sup>\*13</sup>: Not leased line. Use 3G-SDI and choose from Video Format. <sup>\*14</sup>: Abbreviation of Secure Reliable Transport. <sup>\*15</sup>: High bandwidth NDI<sup>®</sup> transmits 4K video at a maximum of 250 Mbps and full HD video at a maximum of 125 Mbps. <sup>\*16</sup>: Abbreviation of Real-Time Messaging Protocol and Real-Time Messaging Protocol Secure. <sup>\*17</sup>: Abbreviation of Real-time Streaming Protocol. <sup>\*18</sup>: Abbreviation of Real-time Transport Protocol. <sup>\*19</sup>: SFP+ module purchased separately. Please reference brochure for recommended models. <sup>\*20</sup>: Discontinued Products. <sup>\*21</sup>: AW-UE100W/K connection support is under consideration. See the Panasonic website (<https://pro-av.panasonic.net/en/download/index.html>) for the latest information. <sup>\*22</sup>: For more information about controllers, please visit the Panasonic website ([https://pro-av.panasonic.net/en/products/compatibility\\_chart](https://pro-av.panasonic.net/en/products/compatibility_chart)). <sup>\*23</sup>: Other controllers are under consideration. See the Panasonic website (<https://pro-av.panasonic.net/en/products/aw-ue100/accessories.html#accessories>) for the latest information. <sup>\*24</sup>: However, Slow Shutter, LDC, Priority Mode, Mirror, Language settings cannot be controlled. <sup>\*25</sup>: For more information about ROP/RCP, please visit the Panasonic website ([https://pro-av.panasonic.net/en/products/compatibility\\_chart](https://pro-av.panasonic.net/en/products/compatibility_chart)). <sup>\*26</sup>: AW-UE100W/K connection support planned for the future. See the Panasonic website (<https://pro-av.panasonic.net/en/products/aw-ue100/accessories.html#accessories>) for the latest information. <sup>\*27</sup>: This EIS works for the roll direction. <sup>\*28</sup>: "Auto" is available when "Scene" setting is "Full Auto". <sup>\*29</sup>: A widely-used protocol for transmitting camera tracking data in virtual studios.

## 4K / HD Integrated Camera

4K 60p/50p\*1 output, high-magnification zoom and wide-angle shooting for flexible video production



Optical Zoom  
20x



4K Integrated Camera  
**AW-UE150W/K**  
V-Log Support\*2

4K 60p/50p\*1 NDI®\*4 & SRT\*5 supported PTZ Camera with a compact body and a wide range of features



Optical Zoom  
24x



**NEW**  
4K Integrated Camera  
**AW-UE100W/K**

Integrated pan-tilt 4K cameras able to output 4K video via 3G-SDI, HDMI, USB, and IP transmission



Optical Zoom  
20x



4K Integrated Camera  
**AW-UE70W/K**  
NDI®|HX\*3 built-in model  
**AW-UN70W/K**

Integrated pan-tilt full-HD cameras supporting 3G-SDI, HDMI, USB and IP transfer



Optical Zoom  
20x

HD Integrated Camera  
**AW-HE42W/K**

Integrated pan-tilt full-HD cameras with excellent operability and installation flexibility



Optical Zoom  
30x

HD Integrated Camera  
SDI model  
**AW-HE40SW/SK**  
HDMI model  
**AW-HE40HW/HK**  
NDI®|HX\*3 built-in model  
**AW-HN40HW/HK**



Optical Zoom  
22x

HD Integrated Camera  
**AW-HE38HW/HK**  
NDI®|HX\*3 built-in model  
**AW-HN38HW/HK**



4K Integrated Camera  
**AW-UE40WG/KG**

Full-HD camera with integrated pan-tilt for lectures, meetings and a wide variety of applications

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

**For outdoor use**  
Outdoor integrated pan-tilt full-HD camera with high sensitivity, high S/N ratio, and high resolution



Optical Zoom  
20x

- High-Wind Resistance
- Water & Dust Proof
- Defroster
- Heat Resistance
- Lens Wiper
- Resistance to Salt Damage
- Haze Reduction
- D.I.S.S

Full-HD Outdoor Integrated Camera  
**AW-HR140**

## IT/IP Platform

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



**NEW** IT/IP Platform  
**KAIROS**



Kairos Core 100



Kairos Control



Kairos Creator

[https://pro-av.panasonic.net/en/products/it\\_ip\\_platform/](https://pro-av.panasonic.net/en/products/it_ip_platform/)



## Remote Camera Controller / Switcher / Remote Operation Panel

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



Remote Camera Controller  
**AW-RP150GJ**

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



Remote Camera Controller  
**AW-RP60GJ**

An all-in-one switcher that combines the functions of a live switcher, remote camera controller, and audio mixer



Live Production Center  
**AV-HLC100**

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



**NEW**  
Live Switcher  
**AV-UHS500**

These compact operation panels also support PoE and IP control



Remote Operation Panel (ROP)  
**AK-HRP1000GJ**  
**NEW**  
**AK-HRP1015GJ\*6,7**

Compact operation panel also compatible with Studio Handy Cameras



Remote Operation Panel (ROP)  
**AK-HRP200G**  
**NEW**  
**AK-HRP250GJ\*6**

• For more information about controllers, please visit here ([https://pro-av.panasonic.net/en/products/compatibility\\_chart/](https://pro-av.panasonic.net/en/products/compatibility_chart/)).

## Optional Products

AC Adaptor  
**AW-PS551**



Wireless remote control  
**AW-RM50G**



Direct Ceiling Mount Bracket  
**WV-Q105A**



• If you need information about PoE HUB, 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



Main screen

### 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

For more information, please visit Panasonic PTZ Camera Systems web site ([https://pro-av.panasonic.net/en/ptz\\_camera\\_system.html](https://pro-av.panasonic.net/en/ptz_camera_system.html))

## Memory Card Portable Recorder

POVCAM with a Compact, Lightweight, Free-Shooting Design and IP Network Linking Capability



Memory Card Portable Recorder  
**AG-UMR20**



\*1: Actual output format is UHD (3840 x 2160) 59.94p/50p. \*2: A version software update may be required on the device. \*3: NDI®|HX, a technology of NewTek, Inc. \*4: NDI® is a new live video production workflow support protocol for IP use developed by NewTek in the United States. In this instance, NDI® is used to indicate High bandwidth NDI®. \*5: Abbreviation of Secure Reliable Transport. \*6: Scheduled for release in the fourth quarter of CY2020. \*7: Not available in some areas.