

2020 PRO PTZ CAMERA LINEUP

	COMPACT ePTZ	ENTRY-LEVEL	HD w/HDMI	HD w/SDI	HD PROFESSIONAL	4K PROFESSIONAL	4K NDI PERFORMANCE	4K PERFORMANCE	ALL WEATHER
									
	STANDARD	STANDARD	STANDARD		STANDARD	STANDARD	PERFORMANCE	PERFORMANCE	OUTDOOR
MODEL	AW-UE4	AW-HE38H	AW-HE40H	AW-HE40S	AW-HE42	AW-UE70	AW-UE100	AW-UE150	AW-HR140
NDI / NDI HX Models	-	AW-HN38H	AW-HN40H	Upgrade Available	Upgrade Available	AW-UN70	AW-UE100	AW-UE150	-
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)	Silver
GENERAL									
Sensor	1/2.5" MOS	1/2.3" MOS	1/2.3" MOS		1/2.3" MOS	1/2.3" MOS	1/2.5" MOS	1" MOS	1/2.86" 3MOS
Optical Zoom	-	22x	30x		20x	20x	24x	20x	20x
i.Zoom	-	30x	40x		30x	-	28x (UHD) / 36x (HD)	32x	-
Digital Zoom	4x	16x	16x		12x	12x	10x	10x	10x
FOV (Horizontal)	111°	61.6° (W) - 2.9° (T)	61.6° (W) - 2.10° (T)		65.1° (W) - 3.26° (T)	65.1° (W) - 3.26° (T)	74.1° (W) - 3.3° (T)	75.1° (W) - 4.0° (T)	60.2° (W) - 3.3° (T)
FOV (Vertical)	75°	37.0° (W) - 1.6° (T)	37.0° (W) - 1.18° (T)		39.5° (W) - 1.83° (T)	39.5° (W) - 1.83° (T)	46° (W) - 1.9° (T)	46.7° (W) - 2.3° (T)	36.2° (W) - 1.9° (T)
FOV (Diagonal)	120°	68.7° (W) - 3.3° (T)	68.7° (W) - 2.42° (T)		72.4° (W) - 3.74° (T)	72.4° (W) - 3.74° (T)	81.8° - 3.8° (T)	82.8° (W) - 4.6° (T)	67.4° (W) - 3.8° (T)
Focus	Auto / Manual	Auto / Manual	Auto / Manual		Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual	Auto / Manual
Horizontal Resolution	1400 Lines	1000 Lines	1000 Lines		1000 Lines	1300 Lines (UHD)	1400 Lines	1600 Lines	1000 Lines
Minimum Illumination	4 lx	0.35 lx	0.35 lx		0.35 lx	0.35 lx	3 lx (at F1.8, 59.94p, 50IRE, +42dB)	2 lx	2 lx
Gain	0 dB - 42dB	0 dB - 48dB	0 dB - 48 dB		0 dB - 48 dB	0 dB - 48 dB	0dB - 36dB (Super Gain +37dB - +42dB)	0 dB - 36 dB	0 dB - 42 dB
Control	IP / IR	Serial / IP / IR	Serial / IP / IR		Serial / IP / IR	Serial / IP / IR	Serial / IP / IR	Serial / IP / IR	Serial / IP
Power	PoE or USB ¹	PoE+ or AC	PoE+ or AC		PoE+ or AC	PoE+ or AC	PoE++ or AC	PoE++ or XLR ²	PoE++ or XLR ²
PoE Wattage	Up to 15W	Up to 30W	Up to 30W		Up to 30W	Up to 30W	Up to 57W	Up to 100W	Up to 60W
Power Consumption	1 A (USB / DC 5V) 0.2 A (PoE)	1.2 A (AC) 0.4 A (PoE+)	1.2 A (AC) 0.4 A (PoE+)		1.3 A (AC) 0.5 A (PoE+)	1.3 A (AC) 0.5 A (PoE+)	3.0A (DC) 1.0A (PoE++)	4.0 A (XLR) 1.2 A (PoE++)	5.5 A (XLR) 2.1 A (PoE++)
Weight	1.10 lbs	3.30 lbs	3.30 lbs		3.30 lbs	3.30 lbs	4.85 lbs	9.24 lbs	19.8 lbs
Installation	Tripod, Wall, Ceiling	Tripod, Wall, Ceiling	Tripod, Wall, Ceiling		Tripod, Wall, Ceiling	Tripod, Wall, Ceiling	Tripod, Wall, Ceiling	Tripod, Wall, Ceiling	Wall, Ceiling
Mount Position	Invertible: Ceiling or Desktop	Invertible: Ceiling or Desktop	Invertible: Ceiling or Desktop		Invertible: Ceiling or Desktop	Invertible: Ceiling or Desktop	Invertible: Ceiling or Desktop	Invertible: Ceiling or Desktop	Invertible: Ceiling or Desktop
PTZ									
Pan Range	±175° (manual)	±175°	±175°		±175°	±175°	±175°	±175°	±175°
Tilt Range	±25° (manual)	-30 to 90°	-30 to 90°		-30 to 90°	-30 to 90°	-30 to 210°	-30 to 210°	-30 to 210°
Pan / Tilt Speed	-	300°/s (Presel) 90°/s (M)	300°/s (Presel) 90°/s (M)		300°/s (Presel) 90°/s (M)	300°/s (Presel) 90°/s (M)	±175°/30° - +210°	-180°/s	60°/s
Operation Noise	-	NC35 or Less	NC35 or Less		NC35 or Less	NC35 or Less	NC35 or Less	NC35 or Less	NC45 or Less
VIDEO OUTPUT									
LAN	✓	✓	✓	✓	✓	✓	✓	✓	✓
NDI / NDI HX	-	AW-HN38H (NDI HX)	AW-HN40H (NDI HX)	NDI HX (with upgrade)	NDI HX (with upgrade)	AW-UN70 (NDI HX)	4K NDI / HD NDI HX	NDI HX (with upgrade)	-
Optical Fiber	-	-	-	-	-	-	-	-	-
12G-SDI	-	-	-	-	-	-	✓	✓	✓
3G-SDI	-	-	-	-	✓	✓	-	✓	✓
HD-SDI	-	-	-	✓	-	-	-	-	-
HDMI	✓	✓	✓	✓	✓	✓	✓	✓	-
Composite	-	-	-	-	-	-	-	-	-
USB	✓ (USB-C)	✓ (mini-USB)	✓ (mini-USB)	✓ (mini-USB)	✓ (mini-USB)	✓ (mini-USB)	-	-	-
CONTROL									
Browser (PC/Mac/Mobile) via IP	✓	✓	✓	✓	✓	✓	✓	✓	✓
USB	✓ (USB-C)	✓ (mini-USB)	✓ (mini-USB)	✓ (mini-USB)	✓ (mini-USB)	✓ (mini-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	AW-SF100 / AW-SF200	-
Live Stream Studio	AV-HLC100	AV-HLC100	AV-HLC100		AV-HLC100	AV-HLC100	AV-HLC100	AV-HLC100	AV-HLC100
iPad App	-	LiveCTRL App	LiveCTRL App		LiveCTRL App	LiveCTRL App	-	LiveCTRL App	LiveCTRL App
IR Remote Control	AW-RM50	AW-RM50	AW-RM50		AW-RM50	AW-RM50	AW-RM50	AW-RM50	-
Compact Controller	AW-RP60	AW-RP60	AW-RP60		AW-RP60	AW-RP60	AW-RP60	AW-RP60	AW-RP60
Full-Size Controller	-	AW-RP150	AW-RP150		AW-RP150	AW-RP150	AW-RP150	AW-RP150	AW-RP150
Remote Operation Panel (ROP/RCP)	-	AK-HRP200 AK-HRP1000 AK-HRP1015**	AK-HRP200 AK-HRP1000 AK-HRP1015**		AK-HRP1000 AK-HRP1015**	AK-HRP200 AK-HRP1000 AK-HRP1015**	TBD	AK-HRP200 AK-HRP1000 AK-HRP1015**	AK-HRP200 AK-HRP1000 AK-HRP1015**
Live Video Switcher	AV-UHS500	AV-UHS500	AV-UHS500		AV-UHS500	AV-UHS500	AV-UHS500	AV-UHS500	AV-UHS500
Software Controller (Windows)	PTZ Control Center	PTZ Control Center	PTZ Control Center		PTZ Control Center	PTZ Control Center	PTZ Control Center	PTZ Control Center	PTZ Control Center
FEATURES									
IP Live Preview / Output	✓	✓	✓	✓	✓	✓	✓	✓	✓
Image Stabilization	-	Electronic	Electronic		Optical	Optical	Optical	Optical	Optical / D.I.S.S.
Night Mode (for IR)	-	✓	✓		✓	✓	✓	✓	✓
Dynamic Range Stretch (DRS)	✓	✓	✓		✓	✓	✓	✓	✓
Audio Input / Embedding	✓	✓	✓		✓	✓	✓	✓	✓
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
microSD Card Recording	-	✓	✓		✓	✓	-	-	-
High Dynamic Range (HDR)	-	-	-		-	-	-	✓	-
Direct Streaming Function	✓	-	-		-	-	✓	✓	-
Streaming Protocols	RTSP, RTMP, RTMPS	RTSP	RTSP		RTSP	RTSP	RTSP, RTMP, RTMPS, SRT	RTSP, RTMP, RTMPS	-
Web Protocols	HTTP	HTTP, HTTPS, NTP, UPnP, FTP	HTTP, HTTPS, NTP, UPnP, FTP		HTTP, HTTPS, NTP, UPnP, FTP	HTTP, HTTPS, NTP, UPnP, FTP	HTTP, HTTPS, NTP, UPnP	HTTP, HTTPS, NTP, UPnP	HTTP, HTTPS, NTP, UPnP, SNMP
Direct Drive System	-	-	-		-	-	✓	-	-
Fanless Design	✓	✓	✓		✓	✓	-	-	-
Built-in ND Filters	-	-	-		Auto, 1/4, 1/16, 1/64	Auto, 1/4, 1/16, 1/64	TBD	1/4, 1/16, 1/64	1/8, 1/64, Through
Genlock	-	-	-		✓	✓	✓	✓	✓
Advanced Color Adjustment	-	✓	✓		✓	✓	✓	✓	✓
Digital Noise Reduction (DNR)	✓	✓	✓		✓	✓	✓	✓	✓
Position Tracking for AR/VR	-	-	-		-	-	✓ (FreeD)	✓ (FreeD)	-
HD Cropping in 4K Mode	-	-	-		-	-	✓	✓	-
V-LOG Support	-	-	-		-	-	-	✓	-
High-Wind Resistance	-	-	-		-	-	-	-	✓
Lens Wiper / Haze Reduction	-	-	-		-	-	-	-	✓
Built-in Heater / Defroster	-	-	-		-	-	-	-	✓
Water & Dust Proof	-	-	-		-	-	-	-	✓
OPTIONS & ACCESSORIES									
Portable Recorder	AG-UMR20	AG-UMR20	AG-UMR20		AG-UMR20	AG-UMR20	AG-UMR20	AG-UMR20	AG-UMR20
Wall Mount (Black -K) / (White -W)	FEC-40WMK / FEC-40WMW	FEC-40WMK / FEC-40WMW	FEC-40WMK / FEC-40WMW		FEC-40WMK / FEC-40WMW	FEC-40WMK / FEC-40WMW	FEC-100WMW / FEC-100WMK	FEC-150GMW / FEC-150GMK	FEC-HR140WMRBB
Pole Mount Adapter	-	FEC-PA1	FEC-PA1		FEC-PA1	FEC-PA1	TBD	FEC-PA1	-
Ceiling Mount	Included	Included	Included		Included	Included	Included	Included	Built-in
Weatherproof Outdoor Housing	Cooled	PAN-D2-CD/CF/CDP	PAN-D2-CD/CF/CDP		PAN-D2-CD/CF/CDP	PAN-D2-CD/CF/CDP	PAN-D2-CD/CF/CDP	PAN-D2-CD/CF/CDP	-
	Heated	-	PAN-D2-HB/HBF		PAN-D2-HB/HBF	PAN-D2-HB/HBF	PAN-D2-HB/HBF	PAN-D2-HB/HBF	-
3 Year Warranty	AG-SVCPREF2Y	AG-SVCPREF2Y	AG-SVCPREF2Y		AG-SVCPREF2Y	AG-SVCPREF2Y	AJ-SVCPREM4Y	AJ-SVCPREM4Y	-
5 Year Warranty + Accident Protection	-	AG-SVCPREM4Y	AG-SVCPREM4Y		AG-SVCPREM4Y	AG-SVCPREM4Y	AJ-SVCPREM4Y	AJ-SVCPREM4Y	-
On-Site Training	AJ-S09TFMCNS	AJ-S09TFMCNS	AJ-S09TFMCNS		AJ-S09TFMCNS	AJ-S09TFMCNS	AJ-S09TFMCNS	AJ-S09TFMCNS	AJ-S09TFMCNS
MSRP (BASE MODEL)	\$1,200	\$2,100	\$2,950	\$3,695	\$4,250	\$5,550	\$8,350	\$11,400	\$17,950
MSRP (NDI HX MODEL)	-	\$2,400	\$3,150	+\$299 Upgrade	+\$299 Upgrade	\$5,850	-	+\$299 Upgrade	-

*SFP+ module purchased separately. Please reference brochure for recommended models. **AK-HRP1015 firmware upgrade may be required.
¹Power supply not included with this model. NDI is a registered trademark of NewTek, Inc. All specifications, availability and pricing are subject to change without notice. us.panasonic.com/PROPTZ

2020 PRO PTZ CAMERA CONTROL

FULL-SIZE CONTROLLER AW-RP150

Control up to 200 PRO PTZ cameras with this full-size camera controller. Quickly setup and access camera presets and complex image controls and easily control your cameras with a top-of-the-line joystick, ensuring smooth camera movements.

- LCD Touchscreen w/Touch Focus Functionality
- Camera Monitoring via HD-SDI
- Industry Approved Ergonomic Design
- 3D Joystick for Single-Handed Operation
- Simplified PTZ Camera Presets & Tracing Memory
- Streamlined Multicamera Deployment
- Power via PoE+ or XLR!



\$4,700
MSRP

COMPACT CONTROLLER AW-RP60

Control up to 200 PRO PTZ cameras, with this full-featured controller. An LCD screen displays menus & key camera information such as iris, zoom and focus.

\$2,375
MSRP

Power via PoE or XLR!



NEW UPDATES! WINDOWS SOFTWARE PTZ CONTROL CENTER

Use the free PTZ Control Center software to set-up and control your camera on a Windows laptop or desktop PC. With this software, you can utilize your mouse, your touch-screen, or your choice of compatible joysticks or game controllers for camera control.

- Software application that allows for remote operation of Panasonic Professional PTZ cameras via your PC, allowing for control via a standard keyboard/mouse, touchscreen, or a compatible USB joystick / game controller
- Allows for centralized management of multiple PTZ cameras
- Provides simultaneous control of multiple cameras, allowing adjustment of Focus, Iris, Gain, White Balance, Shutter & ND Filters
- Add up to 9 camera presets with thumbnails



Works on Windows 7, Windows 8.1 & Windows 10

WEB BROWSER

When your camera is on the network, you can set-up and control it via a web browser on a PC, Mac or mobile device such as an iPhone, iPad or Android device. This is a free, yet powerful option for camera control and setup.



iPad APP LIVECTRL

Use the LiveCTRL app on an iPad Pro to set-up, control and livestream up to 4 Panasonic PRO PTZ cameras. With this app, you can utilize your tablet to produce your entire show. The app is free to download and allows for full camera preview and control at its most basic tier, allowing controlling, switching and livestreaming of up to 4 cameras via an in-app purchase as you scale your production.

YouTube
f LIVE
CUSTOM RTMP



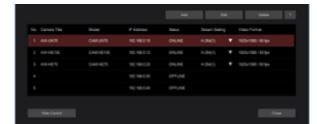
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DRIVER SOFTWARE PTZ VIRTUAL USB DRIVER

With the free PTZ Virtual USB Driver software, you can convert select Panasonic Professional PTZ cameras on your network into super web cams.

- Allows you to use select Panasonic professional PTZ cameras on your network as USB cameras
- Up to 5 cameras can be registered
- Automatic camera discovery and network settings
- Compatible with all PTZ models as well as the AG-UMR20, AG-UCK20, AG-CX10 and AG-CX350.



Works on Windows 7, Windows 8.1 & Windows 10

NEW UPDATES! AUTO TRACKING SOFTWARE / SERVER AW-SF100 / AW-SF200

State-of-the-art auto tracking software option for Panasonic PRO PTZ remote cameras. Dramatically simplify your remote camera operation in locations such as classrooms, lecture halls, auditoriums, conference rooms and stage environments. Using a combination of tracking methods, including template matching, facial detection and deep learning, compatible Panasonic PRO PTZ cameras can be automated to keep track of speakers or lecturers without the need for a dedicated camera operator.

- AW-SF100 (stand-alone software) / AW-SF200 (server)
- Deep Learning, Motion Detection & Facial Recognition used for high-precision auto tracking with minimum tracking error

Works on Windows 7, Windows 8.1 & Windows 10



REMOTE OPERATION PANEL AK-HRP200 / AK-HRP1000

Ideal for multi-camera shoots that incorporate Professional PTZ and non-PTZ cameras, these advanced remote control panels allow for accelerated fine-tuning of camera color and shading.



NEW! ROBOTIC DOLLIES, TELESCOPIC COLUMNS & CEILING/FLOOR TRACKS TECNOPOINT TUNING

The first robotic system with tracks to be fully integrated with Panasonic PRO PTZ cameras. The direct system integration allows for full control of the dolly, column and the camera from a single controller.



AV-HLC100 STREAMSTUDIO

NDI™

Not just a controller, but a full-fledged all-in-one control, production & live streaming system, the AV-HLC100 Stream Studio allows a mixed input of HDMI, SDI and NDI/HX PTZ camera sources (up to 8) for a complete live streaming solution.

- PTZ camera controller, audio mixer, titler, media player, and 1ME live streaming switcher
- Intuitive 3D joystick with pan, tilt, and zoom control
- Stream directly to Youtube Live, Facebook Live, TWITCH, Vimeo, custom RTMP destinations & more

