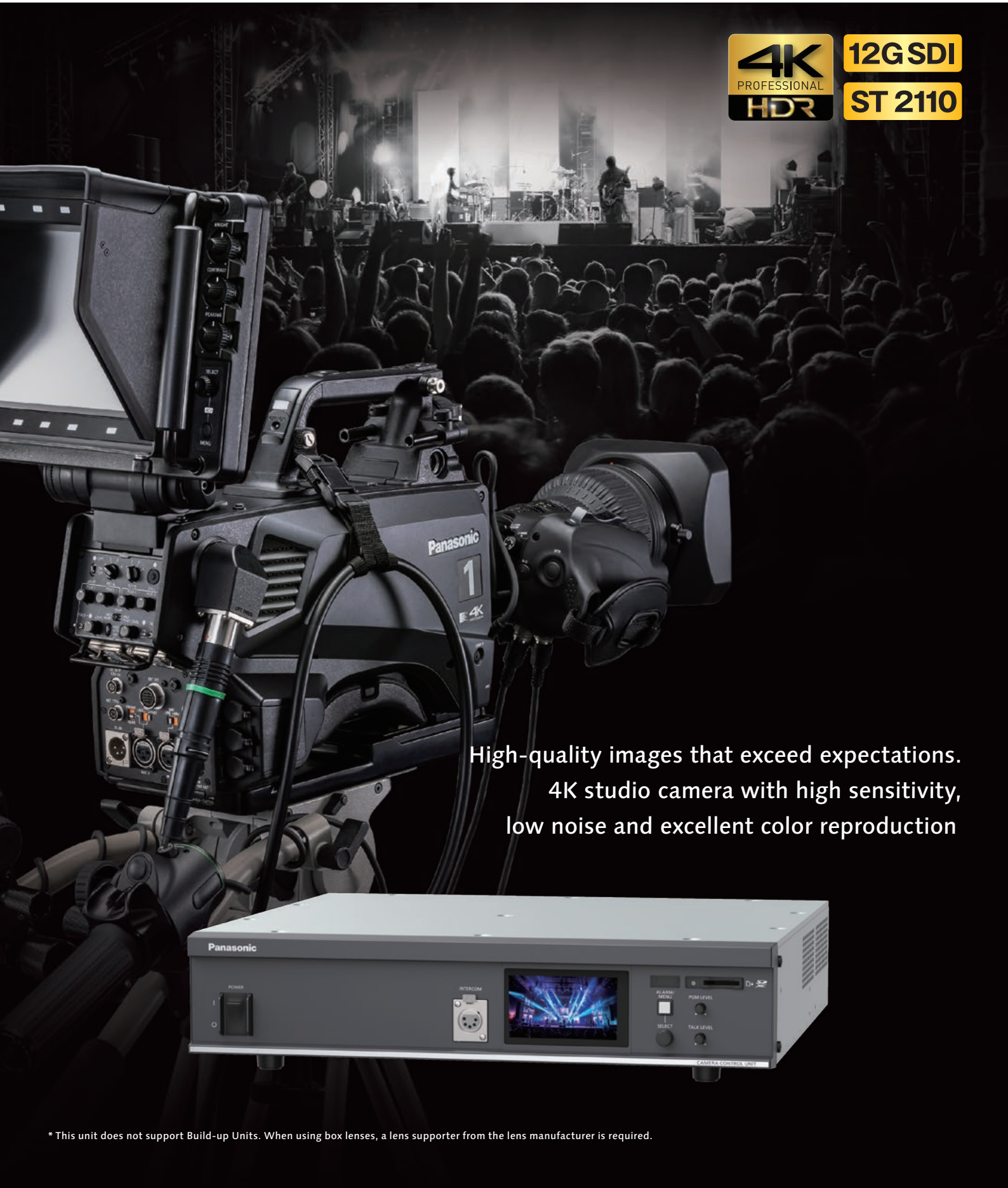
Panasonic
CONNECT

4K/IP Studio Camera System

AK-UC3300 Series
4K Studio Camera

AK-UCU700 Series
Camera Control Unit (CCU)



High-quality images that exceed expectations.
4K studio camera with high sensitivity,
low noise and excellent color reproduction

* This unit does not support Build-up Units. When using box lenses, a lens supporter from the lens manufacturer is required.

Overwhelming image quality with a resolution of 2,000 TV lines.

The camera is equipped with a large 11.14-megapixel 4K image sensor and uses oversampling to achieves horizontal and vertical resolution of 2,000 TV lines. An S/N ratio of 62 dB or higher is maintained with a high sensitivity of F10/59.94 Hz, F11/50 Hz enabling shooting of expressive, high-quality video.

4K Studio Camera
AK-UC3300GJ
(Tajimi connector model)

4K Studio Camera
AK-UC3300GSJ
(LEMO connector model)

4K PROFESSIONAL HDR
12G SDI
ST 2110

* This unit does not support Build-up Units. When using box lenses, a lens supporter from the lens manufacturer is required. Lens and viewfinder are optional accessories.

11.14-megapixel 4K image sensor

With a large 11.14-megapixel 4K image sensor, high sensitivity of F10/59.94 Hz, F11/50 Hz (2,000 lx) and low noise with an S/N ratio of 62 dB or higher are achieved. In addition, oversampling achieves a resolution of 2,000 TV lines in the horizontal and vertical directions for a richly detailed high-resolution images.

HD Hi-Speed mode support*1

2x high-speed shooting is supported in 1080p*1, 1080i*1 and 720p*2.

HD Hi-Speed output (When in Hi-Speed mode. Supported Formats varies depending on the connected CCU.)

1080/59.94p-120fps*1, 1080/50p-100fps*1, 1080/59.94i-120fps*1, 1080/50i-100fps*1, 720/59.94p-120fps*2, 720/50p-100fps*2

CCU*3 with Flexible Connectivity

This camera supports the uncompressed 12G-SDI output that is needed in the 4K age. In addition to SMPTE ST 2110, the AK-UC3300 supports diverse IP standards, including industry-first*4 support for Dante®, NDI® and SRT,*3 enabling the creation of IP studio camera systems for wide-ranging network environments and applications.

4K/HD multi-format support

Multiple 4K/HD formats are supported, enabling use adapted to the operation application.

Supported formats (Supported Formats varies depending on the connected CCU.)

UHD	2160/59.94p, 2160/50p, 2160/29.97p*5, 2160/25p*5, 2160/23.98p*5, 2160/29.97PsF*2, 2160/25PsF*2, 2160/23.98PsF*2, 2160/23.98PsF & over 59.94i*2
HD	1080/59.94p, 1080/50p, 1080/59.94i, 1080/50i, 1080/29.97PsF*5, 1080/25PsF*5, 1080/23.98PsF*5, 1080/23.98p over 59.94i*5,720/59.94p*2, 720/50p*2

Low-skew shooting

The AK-UC3300GJ/UC3300GSJ supports a high reading speed of 1/100 of a second, compared to 1/60 of a second on standard cameras. The skewing characteristic of MOS sensors has been reduced by reading out the MOS sensor signal at high speed.

Skew reduction images * Images are simulated.

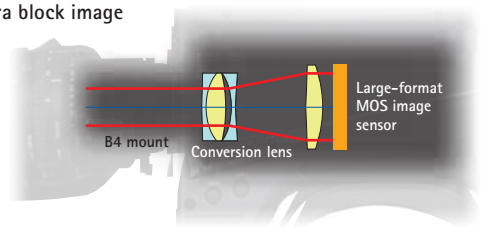
Standard camera (1/60 sec.) AK-UC3300 (1/100 sec.)

*1: High-speed shooting when using AK-UCU700 CCU series will be supported in the future. *2: When using AK-UCU600 CCU series. *3: When using AK-UCU700 CCU series (see page 5 for details).
*4: First studio camera system to support Dante® audio networks, NDI® and SRT as of October 2023, according to Panasonic Connect research. *5: To be supported when using AK-UCU700 CCU series.

B4 mount

The 2/3 lens can be used without an external adaptor, and the internal lens is specially designed for large sensors, ensuring high video quality. This new acquisition method maximizes the effectiveness of incident light.

Camera block image



* Images are simulated.

Digital extender (2x)

Video image size is doubled by the digital signal processing circuit, enabling high-magnification shooting even with low-magnification lenses. Sufficient resolution is maintained even when the image is magnified and the light reduction seen with extender lenses is prevented.

Built-in optical filter

The internal ND filter can be used in various shooting environments.

ND filters: Through, 1/4, 1/16, 1/64

Chromatic Aberration Compensation (CAC)

This exclusive technology utilizes communication between the lens and camera to deploy a sophisticated algorithm that automatically compensates for registration errors caused by lens chromatic aberration and minimizes the circumjacent blur.

Focus assist functions

Quick and accurate focusing is supported with focus assist functions such as Focus Bar (indicates focus level), Focus-in-Red (uses color to indicate areas in focus), MAG (magnifies central portion), and Square (shows focus status of screen as a whole). Lenses with auto focus and focus assist capabilities are also supported*1. The Remote Operation Panel (ROP) can also be used to focus and zoom while using the digital lens.

Focus assist function examples

Focus-in-Red

MAG

Doll in focus

Panel in focus

Focus Square

*1: Contact lens manufacturers for compatible lenses.
*2: Does not function when in 4K mode.
*3: If the transmission distance is extended by connecting fibers at multiple points, the distance will be reduced due to signal attenuation. Use of repeaters as appropriate is also recommended.

HDR (High Dynamic Range)

This mode provides rich gradation to render contrast, color and shadow in highlights and dark image areas that could not previously be reproduced due to overexposure and black defects respectively, resulting in more realistic image quality. Variable HDR that makes optimal adjustments for a wide dynamic range is supported. In addition, it is possible to configure a system supporting simultaneous 4K HDR/SDR in order to handle production environments with both. The SDR signal can suppress blown-out highlights with the offset gain function from the HDR, and the same knee adjustment as for HDR can be performed for highlights.

* Images are simulated.

SDR

HDR

Wide color range with ITU-R BT.2020

This camera is compatible with ITU-R BT.2020, a color space that can recreate almost every color in the natural world, enabling visual expression with excellent color reproduction.

Flash band correction*2

The problem of flash bands (a phenomenon whereby dark and light areas are produced in the same frame when the flash is released) is resolved by the high-precision flash band detection and correction of the camera signal processing LSI.

Diverse color correction functions

In addition to EBU and NTSC preset color matrices, users can perform 12-pole color correction and individual adjustment of saturation and hue with a linear matrix. In addition, the separate skin color adjustment function (Skin Correction) enables more fine-tuned color expression.

Skin tone detail correction

Tone down wrinkles and blemishes in on air personalities to beautifully shoot natural skin tones. Not limited to skin tones, this correction feature can be applied to any hue phase and can define three independent tone ranges for correction. A function to select and directly adjust a specific color is also included.

Shockless gain

It is possible to smoothly transition the image changes that occur when the gain is changed. In addition, with the 0.1 dB step master gain adjustment function, you can fine tune the adjustments to match the scene being shot.

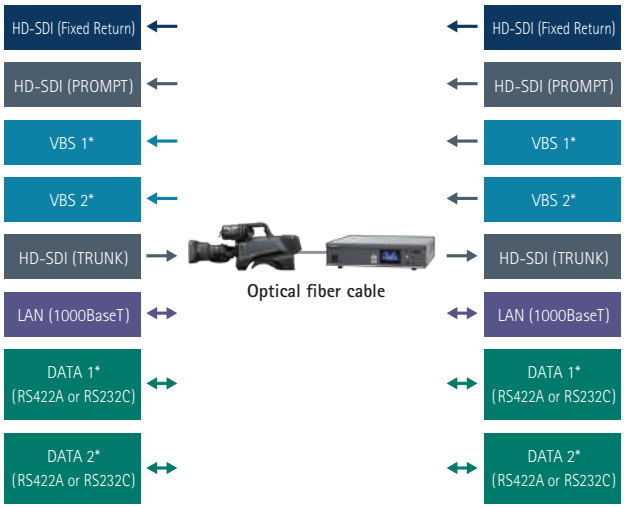
Long-distance transmission

Long-distance transmission of uncompressed video signals to the Camera Control Unit (CCU) via optical fiber is supported. Transmission of approximately 2 km is possible when power is supplied from the CCU. In addition, the transmission distance can be extended up to 10 km by using an external power supply for the camera and general-purpose optical transmission equipment*3. In addition to a dedicated serial line, IP connection via LAN cable is also supported for control between the CCU and the Remote Operation Panel (ROP).

Video and data transmission (TRUNK)

Video and data can be transmitted between the camera and CCU using only an optical cable, enabling the system to be upgraded according to the operating conditions.

- **HD-SDI (CCU→camera) two lines (internal FS), VBS (CCU→camera) two lines*:**
  This line can be used for monitoring (studio floor monitor) with a prompter, fixed return or camera, etc.
- **HD-SDI (camera→CCU) one line (internal FS):**
  This line can be used to output video from a handheld or PTZ Camera in the studio or the field, etc. to the CCU (system). Since the camera video input is equipped with a frame synchronizer, asynchronous video signals can also be used.
- **LAN (1000BaseT) one line:**
  To be used to control external devices and PTZ Cameras by IP protocol. Transmission of streaming video is also supported.
- **DATA (RS422A or RS232C) two lines*:**
  These lines can be used to transfer lens and pedestal position data in a virtual system.



* Only when connected to AK-UCU600 Series.

Detailed settings and functions optimized for operability

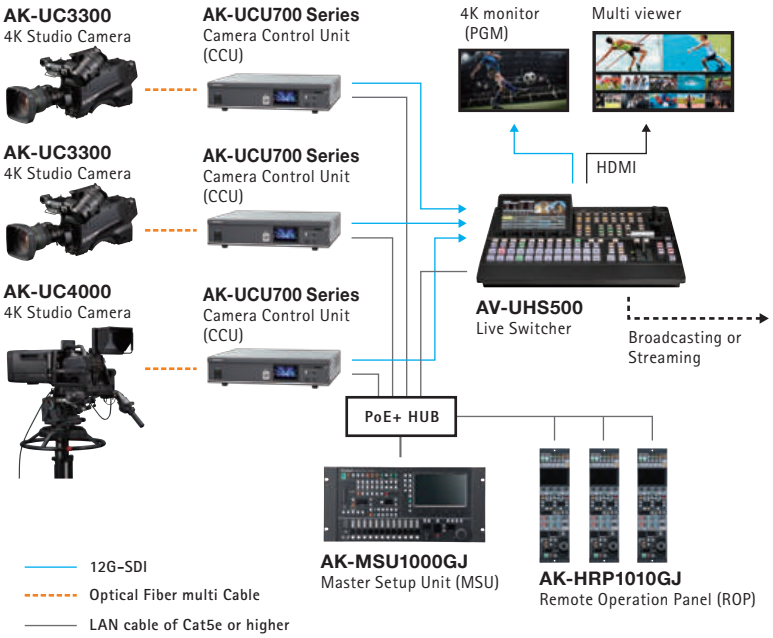
- For camera head output (HD-SDI 1/HD-SDI 2), it is possible to select 1080p, 1080i, and 720p.
- Color temperature display and adjustment function (2000 K to 15000 K variable).
- Camera settings, such as video adjustments, can be saved to an SD memory card.
- The lens file function enables flare and shading values to be saved.
- Support for IP control.
- There are four user buttons on the camera head, with four on the AK-HVF100GJ LCD viewfinder and three on the AK-HVF75GJ LCD viewfinder.
- Two intercom lines can be connected with separate intercom lines.

Example application

Stadiums

12G-SDI system ensures high operability for shooting sports events at stadiums

12G-SDI enables the creation of a complete system including cameras and switchers. It achieves 4K production with the same operability as conventional HD by allowing 4K video to be transmitted through a single coaxial cable. In addition to permanent stadium facilities, it allows next-generation 4K live production when shooting from broadcasting vans and at temporary venues.



Options

AK-HVF75GJ
17.8 cm (7 inches)
LCD Color Viewfinder

AJ-CVF25GJ
87.6 mm (3.45 inches)
Electronic HD Color Viewfinder

AJ-MC700P
Super-Directional Electret Capacitor Microphone (monaural)

AW-PS551
AC Adaptor
* For AK-MSU1000GJ. Can not use for power supply to AK-UC3300.

SHAN-TM700
Tripod Adaptor

AJ-C10050G
Remote Control Cable
50 m (164 ft)

AJ-MH800G
Microphone Holder

As of October, 2023
Preliminary

ST 2110 and Dante® I/Fs installed Model

AK-UCU710PSJ/ESJ (LEMO Connector Model)

AK-UCU710PJ/EJ (Tajimi Connector Model)

Basic Model

AK-UCU700PSJ/EJ (LEMO Connector Model)

AK-UCU700PJ/EJ (Tajimi Connector Model)

Camera Control Unit (CCU) NEW

Supports simultaneous 4K HDR and HD SDR, plus ST 2110 and Dante® (industry first*1)

*Dante® is a registered trademark of Audinate Pty Ltd..

Camera Control Unit (CCU)			SMPTE ST 2110			Dante® Audio	NDI®	SRT
			4K	HD	Jpeg-XS			
ST 2110 and Dante® Installed Model	LEMO	AK-UCU710PSJ AK-UCU710ESJ	√ Standard	√ Standard	√ Standard	√ Standard	Sold separately (AK-NP703)	
	Tajimi	AK-UCU710PJ AK-UCU710EJ						
Basic Model	LEMO	AK-UCU700PSJ AK-UCU700ESJ	Sold separately (AK-NP701)			Sold separately (AK-NP702)	Sold separately (AK-NP703)	
	Tajimi	AK-UCU700PJ AK-UCU700EJ						

Supports 4K/HDR operation and HD high-speed shooting

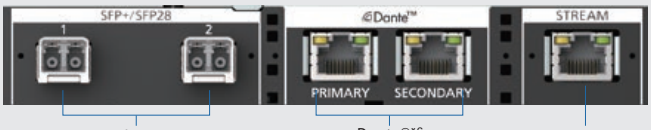
- Uncompressed optical transmission between camera and CCU over distances up to about 2,000m.*2
- Simultaneous output of HDR and SDR or HDR BT.2020 and BT.709.
- Eight standard SDI outputs, including two 12G-SDI outputs.
- High-speed shooting: Up to 2x in HD.*3

Supported formats

UHD	3840 x 2160/59.94p, 50p, 29.97p*4, 25p*4, 23.98p*4
HD	1080/59.94p, 50p, 59.94i, 50i, 23.98p over 59.94i*4, 29.97PsF*4, 25PsF*4, 23.98PsF*4, 23.98p over 59.94i*4
HD High Speed*3	1080/59.94p-120fps, 1080/50p-100fps, 1080/59.94i-120fps, 1080/50i-100fps

Supports 3 independent IP interfaces

- Uncompressed or JPEG-XS 4K/HD IP transmission with ST 2110/NMOS option.*5
- Redundant operation with two SFP28 terminals.*5
- The industry's first*1 support for Dante®*6 network audio, as well as NDI®*7*8 and SRT for streaming.



SFP+/SFP28*5 (AK-NP701) | Dante®*6 (AK-NP702) | Streaming*8 (AK-NP703)

Color LCD touch panel

- 3.5-inch color LCD touch panel for intuitive operation and viewing camera output without requiring an external monitor.
- PC web browser can be used to remotely configure settings.

Rear View (When all options are installed)

*1: First studio camera system to support Dante® audio networks, NDI® and SRT as of October 2023, according to Panasonic Connect research.
*2: When power is supplied from CCU.
*3: To be supported through firmware update. HD High Speed mode is available when using AK-UC3300 studio camera.
*4: Future support planned.
*5: Standard in AK-UCU710PSJ/ESJ/PJ/EJ and optional in AK-UCU700PSJ/ESJ/PJ/EJ (requires ST 2110 interface board AK-NP701 sold separately). Optical communication module is not included. A third-party optical module must be purchased separately.
*6: Standard in AK-UCU710PSJ/ESJ/PJ/EJ and optional in AK-UCU700PSJ/ESJ/PJ/EJ (requires Dante® interface board AK-NP702 sold separately).
*7: 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.
*8: Requires AK-NP703 streaming interface board sold separately.

Specifications

4K Studio Camera AK-UC3300GJ/UC3300GSJ

GENERAL	
Power Supply	DC 12 V (when using an external power supply) AC 240 V, 50 Hz/60 Hz (when AK-UCU600PJ/UCU600PSJ/UCU600EJ/UCU600ESJ is connected)
Power Consumption	119 W (maximum, when connecting to an external 12 V and including supply to an externally connected devices) 170 W (maximum, when AK-UCU600PJ/UCU600PSJ/UCU600EJ/UCU600ESJ is conncected and including supply to an externally connected devices)
Ambient Operating Temperature	–10 °C to 45 °C (14 °F to 113 °F) (Preheating required under a temperature 0 °C (32 °F) or below)
Storage Temperature	–20 °C to 60 °C (–4 °F to 140 °F)
Ambient Operating Humidity	85% or less (relative humidity)
Weight	Approx. 4.3 kg (9.46 lbs.) (body only, excluding the accessories)
Dimensions (W x H x D)	Body only 151 mm x 267 mm x 374 mm (5-31/32 inches x 10-17/32 inches x 14-23/32 inches) (excluding protrusions)
Camera Unit	
Pickup Device	11.14 million pixels, MOS Sensor
Optical Filter	ND: Clear, 1/4, 1/16, 1/64
Lens Mount	2/3-type bayonet
Sensitivity	Two shooting modes [HIGH SENS]: F10 (59.94 Hz)/F11 (50 Hz) [NORMAL]: F6 (59.94 Hz)/F7 (50 Hz) 2000 lx, 3200 K, when white reflectivity is 89.9%
Horizontal Modulation	50% or above (27.5 MHz)
S/N	62 dB or above
Horizontal Resolution	HD: 1000 TV lines or above (center) 4K: 2000 TV lines or above (center, AK-UCU600PJ/UCU600PSJ/UCU600EJ/UCU600ESJ output)
Gain Switching	[NORMAL]: –6, –3, 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36 [HIGH SENS]: –6, –3, 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36
Shutter Speed	•[59.94i]/[59.94p] mode: 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 •[29.97p] mode: 1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 •[23.98p] mode: 1/48, 1/50, 1/60, 1/96, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 •[50i]/[50p] mode: 1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 •[25p] mode: 1/48, 1/50, 1/60, 1/96, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000
System Format	3840 x 2160/59.94p/50p/29.97p/25p/23.98p 1920 x 1080/59.94p/59.94p(2x)/50p/50p(2x)/29.97p/25p/23.98p
Video Input/Output	
<HD SDI 1> terminal	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω
<HD SDI 2> terminal	BNC x 1 3G/1.5G-SDI: 0.8 V [p-p], 75 Ω
<AUX> terminal	BNC x 1 Functions as <HD TRUNK> terminal/<PROMPTER2> terminal by switching the setting in the menu <HD TRUNK>: 1.5G-SDI: 0.8 V [p-p], 75 Ω <PROMPTER2>: VBS signal 1 V [p-p], 75 Ω
<G/L IN/PROMPTER OUT> terminal	BNC x 1 <G/L IN>: Tri-level SYNC or black burst <PROMPTER OUT>: VBS signal 1 V [p-p], 75 Ω Functions as <G/L IN> when standalone, and as <PROMPTER OUT> when AK-UCU600PJ/UCU600PSJ/UCU600EJ/UCU600ESJ is connected
Audio Input/Output	
<MIC 1> terminal	XLR x 1, 3-pin, female type <LINE>/<MIC>/<+48V> switchable For <MIC>, <FRONT>/<REAR> switchable <LINE>: 0 dBu, +4 dBu menu selection available <MIC>: –60 dBu, –40 dBu, or –20 dBu menu can be selected
<MIC 2> terminal	XLR x 1, 3-pin, female type <LINE>/<MIC>/<+48V> switchable <LINE>: 0 dBu, +4 dBu menu selection available <MIC>: –60 dBu, –40 dBu, or –20 dBu menu can be selected
<MIC> terminal (front)	XLR x 1, 3-pin, female type Switchable with <MIC 1> terminal
Intercom	
<INTERCOM1> terminal	XLR x 1, 5-pin, female type
<INTERCOM2> terminal	XLR x 1, 5-pin, female type
<EARPHONE> terminal	Stereo mini jack x 1

Other Input/Output	
<OPT FIBER> terminal	Optical composite connector x 1
<LENS> terminal	12-pin x 1
<VF> terminal	20-pin x 1
<VF> terminal (rear)	29-pin x 1
<DC IN> terminal	XLR x 1, 4-pin, DC 12 V
<DC OUT 12 V 1 A> terminal	4-pin x 1
<RET CTRL> terminal	6-pin x 1
<EXT I/O> terminal	20-pin x 1, DC 12 V, 0.5 A
<REMOTE> terminal	10-pin x 1
<TRUNK> terminal	12-pin x 1
<DC OUT 12 V 2.5 A> terminal	2-pin x 1
<LAN> terminal	RJ-45 x 1

Camera Control Unit (CCU)

AK-UCU710PSJ/UCU710ESJ/UCU710PJ/UCU710EJ
AK-UCU700PSJ/UCU700EJ/UCU700PJ/UCU700EJ

Preliminary

Power Supply	100 V - 240 V AC, 50 Hz/60 Hz
Power Consumption	TBD
Capacity for Supplying Power to a Camera	AC 240 V (tolerance 5 %), 1.46 A, 50 Hz/60 Hz [Target]
Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Humidity	10 % to 90 % (no condensation)
Storage Temperature	–20 °C to 60 °C (–4 °F to 140 °F)
Weight	TBD
Dimensions (W x H x D)	424 mm x 88 mm x 401 mm (16-5/8 inches x 3-7/16 inches x 15-13/16 inches) (excluding protrusions)
Video Output	3G/HD-SDI: 5 lines
	12G/6G/3G/HD-SDI: 2 lines
	HD-SDI: 1 line (shared with picture monitor output*1)
Return Input	3G/HD-SDI: 4 lines
Reference Input	BB (black burst) / tri-level*2: 1 line (automatic termination, connect to upper connector; BB signal and tri-level signal automatically recognized, with loop-through output)
Microphone Output	0 dBm/600 Ω, 2 lines (XLR, 3-pin, male)
Communication	Intercom input/output (ENG / PROD, 0 dBm, 600 Ω (4 W) / 1 V [p-p], 200 Ω (RTS), 4 W / RTS / CLRCOM) : 2 lines*1 PGM input (0 dBm/600 Ω) : 2 lines Tally input (red, green, yellow) : 1 input each
Tally Output	Tally output (red, green, yellow) : 1 output each
AUX Output	Selective output from Return inputs.
REAR ROP	RS-422 1 line, 16 V DC output (only one of this and FRONT ROP can be selected at one time via the menu or the [ROP FRONT/REAR] selection switch on the front panel)
MSU	RS-422 1 line, GPI for control
LAN TRUNK	LAN connection with camera side via an optical cable 1 line, 100BASE-TX, 1000BASE-T
LAN	Personal computer connection for distribution via the Web 1 line, 10BASE-T, 100BASE-TX, 1000BASE-T (use a crossover cable when connecting directly with a personal computer)
SFP+/SFP28 1, 2*3	AK-UCU710PSJ/UCU710ESJ/UCU710PJ/UCU710EJ: SFP+/SFP28 x 2 (for ST 2110 connection)
	AK-UCU700PSJ/UCU700EJ/UCU700PJ/UCU700EJ: SFP+/SFP28 x 2 (for ST 2110 connection)* * When AK-NP701 (sold separately) is installed.
Dante®*4	AK-UCU710PSJ/UCU710ESJ/UCU710PJ/UCU710EJ: RJ45 x 2 (Primary, Secondary)
	AK-UCU700PSJ/UCU700EJ/UCU700PJ/UCU700EJ: RJ45 x 2 (Primary, Secondary)* * When AK-NP702 (sold separately) is installed.
STREAM*5	AK-UCU710PSJ/UCU710ESJ/UCU710PJ/UCU710EJ/ AK-UCU700PSJ/UCU700EJ/UCU700PJ/UCU700EJ: RJ45 x 1 (for IP video streaming, SRT, and NDI®)* * When AK-NP703 (sold separately) is installed.

*1: Depending on the setting, only one of them can be selected at one time. *2: The BB (black burst) signal and tri-level sync signal of the reference input are recognized automatically. *3: Standard in AK-UCU710 and optional in AK-UCU700 (requires ST 2110 interface board sold separately). *4: Standard in AK-UCU710 and optional in AK-UCU700 (requires Dante® interface board AK-NP702 sold separately). *5: Requires AK-NP703 streaming interface board sold separately.

Remote Operation Panel (ROP) AK-HRP1010GJ/HRP1015GJ/HRP250GJ

GENERAL	
Power Supply	AK-HRP1010GJ: 12 V DC (Power supply from camera/CCU: 10 V - 16 V DC) 42 V - 57 V DC (PoE power supply) AK-HRP1015GJ/HRP250GJ: 12 V DC (Power supply from camera: 10 V - 16 V DC) 42 V - 57 V DC (PoE power supply)
Power Consumption	AK-HRP1010GJ: 0.9 A (Power supply from camera/CCU: 10 V - 16 V DC) 0.3 A (PoE power supply) AK-HRP1015GJ: 0.44 A (Power supply from camera: 10 V - 16 V DC) 0.11 A (PoE power supply) AK-HRP250GJ: 0.51 A (Power supply from camera: 10 V - 16 V DC) 0.15 A (PoE power supply)
Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Humidity	90% or less
Storage Temperature	–20 °C to 60 °C (–4 °F to 140 °F)
Weight	AK-HRP1010GJ: Approx. 1.7 kg (3.75 lb) AK-HRP1015GJ: Approx. 1.5 kg (3.3 lb) AK-HRP250GJ: Approx. 1.4 kg (3.08 lb)
Dimensions (W x H x D)	AK-HRP1010GJ: 102 mm x 385 mm x 113 mm (4 inches x 15-3/16 inches x 4-7/16 inches) AK-HRP1015GJ: 82 mm x 355 mm x 124.4 mm (3-1/4 inches x 14 inches x 4-7/8 inches) AK-HRP250GJ: 92 mm x 308 mm x 67 mm (3-5/8 inches x 12-1/8 inches x 2-5/8 inches)
Camera/CCU Control	Control signals (camera, CCU control) Power supply 16 V DC (when CCU connected)*1, 12 V DC (when camera connected)*1
Maximum Cable Length	When camera connected: 20 m (65.7 ft) When CCU connected: 50 m (164 ft)
Monitor	
LCD Monitor	AK-HRP1010GJ: LCD color monitor, touch panel support AK-HRP1015GJ: LCD color monitor
Input/Output Section	
<CCU> connector	10-pin, male x 1
<PREVIEW> connector	9-pin, female x 1
<LAN> connector	AK-HRP1010GJ: RJ-45 x 1 AK-HRP1015GJ/HRP250GJ: RJ-45 x 1 (equipped with a robust LAN terminal connector)

Master Setup Unit (MSU) AK-MSU1000GJ

Power Supply	12 V DC (DC input range: 10 V - 16 V DC) 42 V - 57 V DC (PoE+ power supply)
Power Consumption	1.6 A (Power supply: 12 V DC) 0.6 A (PoE+ power supply)
Operating Temperature	0 °C to 40 °C (32 °F to 104 °F)
Humidity	90% or less
Storage Temperature	–20 °C to 60 °C (–4 °F to 140 °F)
Weight	Approx. 4.0 kg (8.82 lb)
Dimensions (W x H x D)	482 mm x 222 mm x 81.5 mm (18-31/32 inches x 8-3/4 inches x 3-7/32 inches) (including mounting brackets and dial heights)
Adjustment Functions	Scene file, ND filter, CC filter, Color temperature (COLOR TEMP), Master gain (MASTER GAIN), Shutter (SHUTTER), Master pedestal (MPED), Iris (IRIS), Camera selection
CCU Control	RS422 or IP
Maximum Cable Length	When CCU is connected: 50 m (164 ft)

22.9 cm (9 inches) LCD Color Viewfinder AK-HVF100GJ

Power Supply	DC 12 V (supplied from camera or XLR)
Power Consumption	18 W
Operating Temperature	0 °C to 45 °C (32 °F to 113 °F)
Operating Humidity	10% to 85% (no condensation)
Storage Temperature	–20 °C to 60 °C (–4 °F to 140 °F)
Weight	Approx. 2.6 kg (5.73 lbs.) (not including hood) / Approx. 3.0 kg (6.61 lbs.) (including hood)
Dimensions (W x H x D)	340 mm x 234 mm x 193 mm (13-13/32 inches x 9-7/32 inches x 7-5/8 inches) (not including hood) 340 mm x 234 mm x 231 mm (13-13/32 inches x 9-7/32 inches x 9-1/8 inches) (including hood)
Display Panel	22.9 cm (9.0 inches)
Number of Pixels	1920 x 1080 (FHD)
Display Color	Approx. 16.77 million colors
Operation	<POWER> switch, <MENU> button, <SELECT> dial button, <F1>/<F2>/<F3>/<F4> buttons, <BRIGHT> knob, <CONTRAST> knob, <PEAKING> knob, <INPUT> switch
Connector	Camera I/F connector (D-sub 29 pins x 1) SDI IN connector (BNC x 1) DC IN connector (XLR 4 pins x 1)
Supported Signal Format	CAM: 1080/59.94i, 1080/50i SDI: 1080/59.94p, 1080/50p, 1080/59.94i, 1080/50i, 720/59.94p, 720/50p

*1: Can be provided from CCU

Rear View

AK-UC3300GJ
AK-UC3300GSJ

AK-HRP1010GJ

AK-HRP1015GJ / HRP250GJ

AK-MSU1000GJ

Camera System

As of October, 2023

Compact operation panels that support IP control and PoE*1 power supply.

AK-HRP1010GJ
Remote Operation Panel (ROP)

AK-HRP1015GJ
Remote Operation Panel (ROP)

* Not available in some arias.

AK-HRP250GJ
Remote Operation Panel (ROP)

- Camera serial control and IP control are possible. Panasonic 4K/HD Integrated Cameras are supported*2.
- Equipped with joystick control lever. IRIS/PEDESTAL operation is possible.
- Equipped with scene file function.
- Equipped with SD memory card slot. Saving of user files and firmware version updates are supported.
- IP connection and PoE*1 power supply are supported. The AK-HRP1015GJ/HRP250GJ are equipped with a robust LAN terminal connector.

AK-HRP1010GJ AK-HRP1015GJ AK-HRP250GJ

*1: Abbreviation of Power over Ethernet. *2: For information on 4K/HD Integrated Camera support, please refer to the Panasonic website (https://pro-av.panasonic.net/en/products/compatibility_chart/).

Up to 99 CCUs can be connected and controlled.

AK-MSU1000GJ
Master Setup Unit (MSU)

- IP connection: up to 99
  Serial connection: up to 6
- Equipped with 17.8cm (7 inches) LCD menu touch panel.

Equipped with high-resolution 22.9 cm (9 inches) LCD panel and new lift mechanism.

AK-HVF100GJ
22.9 cm (9 inches) LCD Color Viewfinder

- Equipped with full HD (1920 x 1080) 22.9 cm (9 inches) color LCD panel.

Equipped with high-resolution 1.78 cm (0.7 inches) full HD OLED panel.

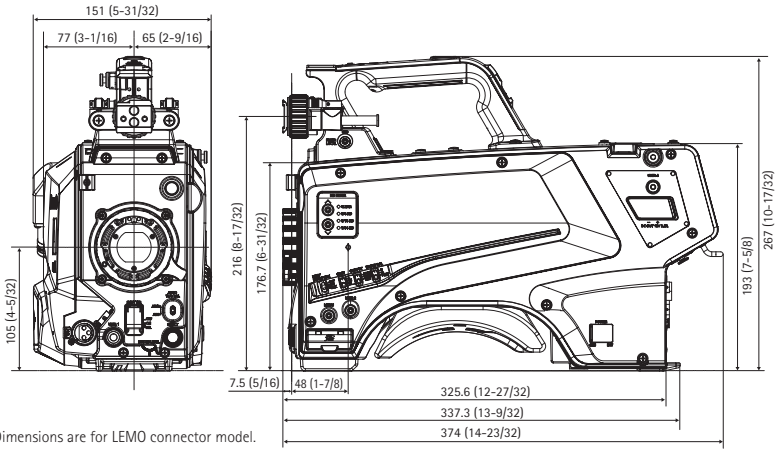
AJ-CVF70GJ
1.78 cm (0.7 inches) Full HD OLED Color Viewfinder

- Equipped with 1.78 cm (0.7 inches) full HD OLED panel and 38mm large-diameter eyepiece.

Dimensions

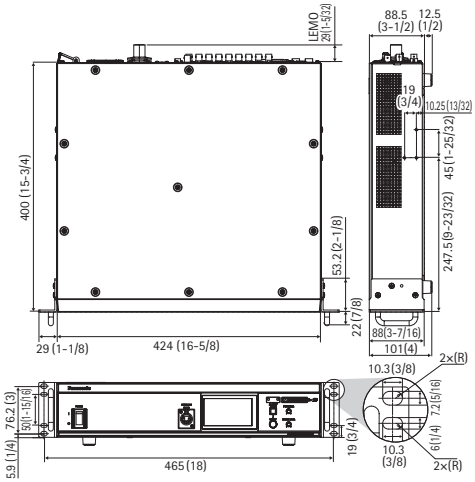
Unit: mm(inches)

■ AK-UC3300GJ/3300GSJ



* Dimensions are for LEMO connector model.

■ AK-UCU710PSJ/UCU710ESJ/UCU710PJ/UCU710EJ
AK-UCU700PSJ/UCU700EJ/UCU700PJ/UCU700EJ



* Dimensions are for LEMO connector model.

Panasonic

Panasonic Connect Co., Ltd.
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ISO 14001 JACO EC98J2010 UKAS MANAGEMENT SYSTEMS 0051

Factories of Panasonic Connect Co., Ltd. have received ISO14001:2015-the Environmental Management System certification. (Except for 3rd party's peripherals.)

For more information, please visit Panasonic web site
https://pro-av.panasonic.net/en/qr/

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