

Panasonic
BUSINESS

AK-UC3000

4K Studio Handy Camera

AK-HC5000

HD Studio Handy Camera

New Studio Handy Cameras



AK-HVF100

AK-HBU500



AK-HC5000



AK-UC3000



AK-UCU500



AK-HRP1005 AK-HRP1000

Simultaneous UHD (4K)/HD/SD output

Superior usability for existing HD and new 4K video



With the newly developed large-format 4K sensor, this camera produces highly expressive 4K video with rich gradation in addition to supporting simultaneous HD/SD.



* Lens and viewfinder are optional. Photo shows a system example using Fujinon 2/3-type 4K ULTRA HDTV Zoom Lens.

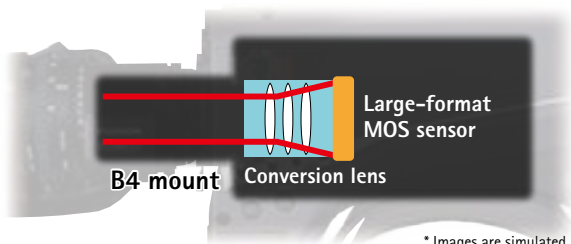
AK-UC3000 4K Studio Handy Camera

AK-UC3000GJ (Tajimi connector model)
AK-UC3000GSJ (LEMO connector model)

Built-in special conversion lens allows to use existing 2/3-type lenses for 4K shooting

New-generation 4K video

Applying built in conversion lens, 2/3-type lens can be used with this 4K large-format camera without an adapter and achieves excellent image quality. The new imaging system makes maximum use of incident light to achieve a wide dynamic range.



* Images are simulated.

UHD and HD/SD output supported*¹

The AK-UC3000 camera system handles UHD as well as HD/SD output simultaneously*¹. You can select the video output based on usage. (See below chart for the supported video format.)

List of supported formats

UHD (3G-SDI x 4)	3840 x 2160/59.94p, 50p, 29.97p, 25p, 23.98p,
HD (3G-SDI)	1080/59.94p, 50p, 59.94i, 50i, 23.98p over 59.94i, 29.97PsF, 25PsF, 23.98PsF, 720/59.94p, 50p
SD	480/59.94i, 576/50i

*¹: AK-UCU500 Camera Control Unit (CCU) outputs UHD/HD/SD video.

and 1080p 4x high-speed shooting

production by B4 mount



1080p 4x high-speed shooting for vivid imaging of exciting moments in sports and events.

AK-HC5000

HD Studio Handy Camera

AK-HC5000GJ (Tajimi connector model)
AK-HC5000GSJ (LEMO connector model)



* Lens and viewfinder are optional.

The 3MOS sensors in constantly evolving ENG cameras are now available in Studio Handy Cameras

1080p 4x high-speed shooting included as standard function*¹

The AK-HC5000 camera system has a high-speed shooting function that adds rich expressions to video content production.



* Image is simulated.

Newly developed 2/3-type MOS sensor

High-image-quality video production is realized with the newly developed 2/3-type MOS sensor. (See below chart for the supported video format.)

List of supported formats*²

HD	(3G-SDI)	1080/59.94p, 50p, 59.94i, 50i, 23.98p over 59.94i, 29.97PsF, 25PsF, 23.98PsF, 720/59.94p, 50p
	High-Speed(3G-SDI x 4)	1080/239.76p, 200p
SD		480/59.94i, 576/50i

*1: To obtain the 1/4 slow effect, a device to separately record 1080/239.76p, 200p is necessary.
*2: AK-UCU500 Camera Control Unit (CCU) outputs 4x HD/HD/SD video.

AK-UC3000/HC5000 Key Features

■ High-quality video and excellent operability

With the AK-UCU500 Camera Control Unit (CCU), uncompressed long-distance transmission of 4K/HD video signals via optical fiber is supported. The AK-HRP1000GJ/1005GJ Remote Operation Panel (ROP) is equipped with a color LCD display that provides excellent visibility. In combination, these devices achieve high-quality video and excellent operability. In cases where power is supplied by the CCU, it is possible to transmit at a long distance of up to approx. 2,000 m between the camera and the CCU. The distance can be extended to approximately 10,000 m by providing an external power supply to the camera and using a general-purpose optical fiber transmission device. Between the CCU and the ROP, in addition to a dedicated serial line, IP connection via LAN cable is also supported.

■ High sensitivity and low noise

The AK-UC3000 is equipped with a newly developed large-format 4K MOS sensor. Two shooting modes can be selected. In High Sense Mode, it is possible to obtain a S/N ratio of 60 dB or higher while also achieving F10 high sensitivity. The result is low-noise and high-image-quality video. The AK-HC5000 is equipped with a 2/3-type 3MOS sensor, and it also has two shooting modes to choose from. In High Sense Mode, it achieves F10 59.94p and F11 50p high sensitivity and low noise with an S/N ratio of 60 dB or higher.

■ Skew reduction realized through high-speed scans

Making unstinting use of knowhow accumulated via Panasonic's ENG 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.

■ Chromatic Aberration Compensation (CAC)

This exclusive technology sets up a conversation between lens and camera which allows for a highly sophisticated algorithm to be deployed that will automatically compensate the registration error that is caused mainly by lens chromatic aberration, and minimize the circumjacent blur.

■ Images showing CAC (Chromatic Aberration Compensation) function effect

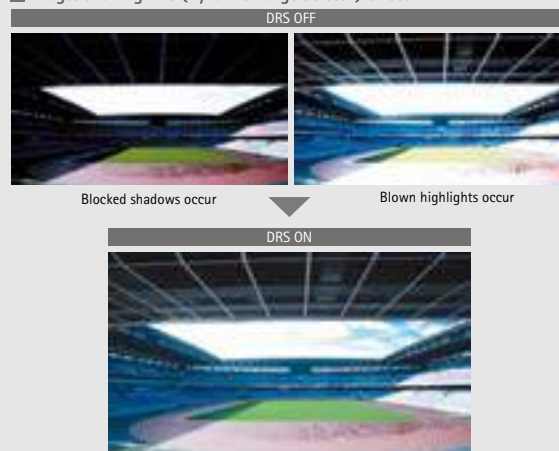


* Images are simulated.

■ Dynamic Range Stretch (DRS) function*1

The DRS function automatically suppresses blocked shadows and blown highlights. When dark and bright areas are mixed in the same scene, such as when looking outside from indoors, DRS can maintain a high level of gradation expression in dark, bright, and intermediate tones, thereby minimizing blocked shadows, blown highlights, and washed out colors. This makes it possible to obtain visually wide dynamic range video in real time.

■ Images showing DRS (Dynamic Range Stretch) effect



* Images are simulated.

■ Selectable gamma curves

In addition to the Film Rec Gamma functions (V-REC, F-REC) supporting digital film production, you can select the Filmlike 1/2/3 modes. They produce natural gradations and rich color reproduction with a film-like quality.

■ Shockless gain

It is possible to smoothly transition the image changes that occur when 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.

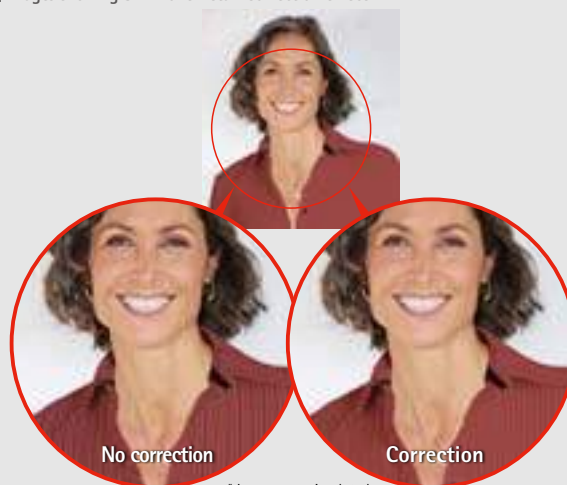
■ Diverse color correction functions

In addition to the EBU or NTSC preset color correction matrix, you can fine tune the hue and saturation of individual colors with 12-axis color correction and the linear matrix. Sensitive color expression is also possible using the separate Skin Tone Detail Correction function for skin tone adjustment.

■ Skin Tone Detail Correction

Tones down wrinkles and dull areas to beautifully shot natural skin textures. Colors for correction can be chosen from the entire hue phase (360°) even for colors other than skin tones, and three types of correction can be individually applied. There is also a function to select color and directly adjust it.

■ Images showing Skin Tone Detail Correction effect



* Images are simulated.

*1: For the AK-UC3000, only when in HD mode.

■ Servo control ND/CC filters

The cameras are equipped with filters for a variety of shooting environments.

[ND filters] CAP, Through, 1/4, 1/16, 1/64

[CC filters] Cross, 3200 K, 4300 K, 6300 K, Diffusion

■ 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.

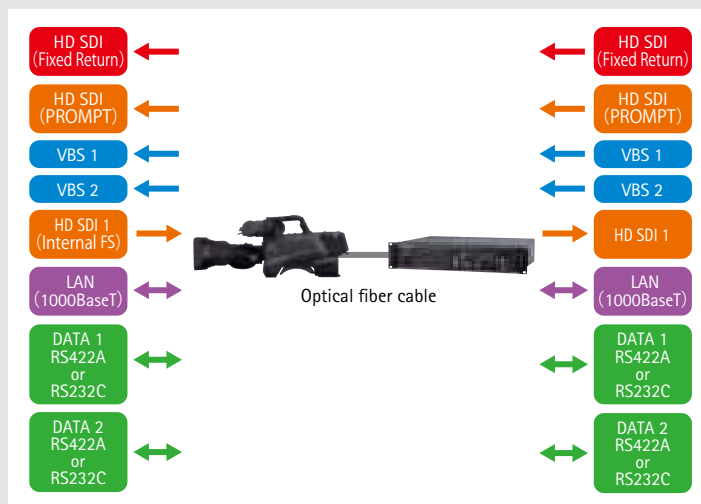
■ Focus assist function examples



■ Extensive video and data transmission (TRUNK) functions

Since video and data can be transmitted between the camera and a Camera Control Unit (CCU) using optical fiber cable alone, system expansion to match operation conditions is possible.

- HD SDI (CCU→camera) two lines, VBS (CCU→camera) two lines: Can be used for monitoring with prompter, fixed return or camera (studio floor monitor), etc.
- HD SDI (camera→CCU) one line*2: This line can be used to transmit an additional video signal of a handheld or remote camera to the studio. Since the camera video input is equipped with a frame synchronizer, asynchronous video signals can also be used.
- LAN (1000BaseT)*2 one line: To be used to control external devices and remote cameras by IP protocol. Transmission of streaming video is also supported.
- DATA (RS422A or RS232C) two lines: Can be used to transfer lens and pedestal position data in a virtual system.



■ Detailed settings and functions optimized for operability

- Color temperature display and adjustment function (2000 K to 15000 K variable).
- Transmission of approx. 10,000 m possible using single fiber.
- It is possible to save camera settings, such as video adjustments, on an SD memory card. Firmware version upgrades are also supported.
- A lens file function to save flare and shading values.
- Support for IP streaming and IP control.
- DC12 V 2.5 A and 1.0 A output as a standard feature. This can be used as a power source for large lenses, prompters, and sub-monitors.
- There are four user buttons (enabling function selection) on the camera head and four on the viewfinder. They support rapid shooting by the camera operator.

■ Intercom connection possible

With two independent intercom lines, in addition to Intercom 1 and Intercom 2 switching, an Intercom 1 and 2 mix mode has been added and can be selected to observe the situation. With the Intercom 1 front/rear switch and front volume, it is possible to adjust the intercom audio level even when the camera is being used from the shoulder.

■ Intercom Operation Panel



■ New slanted-line design improves mobility and operability

The functional layout achieves both ease of use and high-performance. The low-profile body design enhances visibility to the right side of the camera, along with the low center of which improves operability. The shoulder pad can be moved in a 24 mm (15/16 inches) range so you can increase shooting stability by adjusting the forward/backward balance when lens weight changes.



*1: For the compatible lenses, please contact the manufacturer.

*2: Cannot be utilized when the camera system is UHD(4K) and HD high-speed mode is used.

Camera System

AK-UCU500

Camera Control Unit (CCU)

AK-UCU500PJ/AK-UCU500EJ (Tajimi connector model)
AK-UCU500PSJ/AK-UCU500ESJ (LEMO connector model)

The CCU supports both 4K and HD formats by just changing the camera head. It enables a high-quality, long-distance optical fiber transmission camera system to be configured with less cost.



Rear View



- Optical fiber transmission of uncompressed video signals over a distance of approx. 2,000 m between camera and CCU*¹.
- The compact, lightweight unit measures 2U in height and is rack-mountable.
- Supported formats
4K (3G-SDI x 4)*² : 3840 x 2160/59.94p, 50p, 29.97p, 25p, 23.98p
HD (3G-SDI) : 1080/59.94p, 50p, 59.94i, 50i, 23.98p over 59.94i, 29.97PsF, 25PsF, 23.98PsF, 720/59.94p, 50p
HD High Speed(3G-SDI x 4)*³ : 1080/239.76p, 200p
SD : 480/59.94i, 576/50i
- Supports IP streaming (100 Base-T)*⁴.
- SD memory card can be used for saving user files and updating firmware versions.
- Input/output
SDI OUT x 7, SDI OUT (PM) x 1, VBS x 1, etc.
*4K MODE*² : SDI OUT x 4 (4K), SDI OUT x 3, SDI OUT (PM) x 1, VBS x 1, VBS (PM) x 1
*HS MODE*³ : SDI OUT x 4 (HS), SDI OUT x 3, SDI OUT (PM) x 1, VBS x 1, VBS (PM) x 1
RET Input (SDI: 4ch, VBS: 1ch) etc.
LAN-TRUNK (100/1000BASE-T)
PROMPT Input (SDI : 1ch, ANALOG : 2ch)

*1: When power is supplied from CCU.

*2: When Connected with AK-UC3000 4K Studio Handy Camera.

*3: When Connected with AK-HC5000 HD Studio Handy Camera.

*4: Support sequentially from July 2016.

*5: Abbreviation of Power over Ethernet.

AK-HRP1000GJ

AK-HRP1005GJ

Remote Operation Panel (ROP)

Expand operation scope with two size options: a full operation panel and a simplified panel. These compact operation panels also support PoE*⁵ and IP control.



AK-HRP1000GJ



AK-HRP1005GJ

Rear View



AK-HRP1000GJ



AK-HRP1005GJ

- Two models: 1/4 rack size (AK-HRP1000GJ) and 1/5 rack size (AK-HRP1005GJ).
- LCD panels with enhanced visibility.
AK-HRP1000GJ: 8.9 cm (3.5 inches) (VGA)
AK-HRP1005GJ: 8.1 cm (3.2 inches) (VGA)
- Camera serial control and IP control (RJ45 LAN cable) are possible.
- Supports PoE*⁵, which can supply power via LAN cable (CAT5e or faster).
- Can be used for remote control of Panasonic camera recorders, convertible cameras, and HD integrated cameras*⁴.
- Functions for studio camera scene file registration and retrieval.
- Equipped with SD memory card slot for saving user files, scene file and updating firmware versions.

AK-HVF100GJ

22.9 cm (9 inch) LCD Color Viewfinder

Equipped with newly designed tilt mechanism and extensive functions such as focus assist and external video input.

- High-resolution 22.9 cm (9 inch) color LCD panel displays full HD 1920 x 1080 pixels
- Focus assist functions (Focus-in-Red, Focus Bar*1)
- Detail depends on zoom ratio*1
- External HD-SDI (3G SDI) input
- External DC input (+12 V DC)
- Four assignable function buttons
- Contrast, brightness, and peaking are adjustable
- Pan, tilt, and lift structure used

*1: When connected to AK-UC3000 or AK-HC5000.



Rear View



AK-MSU1000GJ

Master Setup Unit (MSU)

Controls up to 99 CCU units via IP

- IP and serial connections supported.
IP connection: Up to 99 units
Serial connection: Up to six units
- 7 inch Touch Panel LCD
Video monitoring function
- HD SDI Input (Monitoring) (1080i)
- Power DC12 V (DC10 V - DC17 V) or PoE+ (via PoE+ Hub)



Rear View



AK-HBU500GJ

Build-up Unit

Enables use of large studio-use lens.



Side Panel



Rear control panel



- Smooth camera mounting/removal possible
- Precise optical axis (horizontal/vertical) adjustment structure
- Rear control panel equivalent to that of a large camera
- DC OUT 12V 7.5 A (XLR4-pin)/DC OUT 1.5 A (4-pin)

Other accessories



AJ-CVF50G
28.1 mm (1.5 inches) HD EVF
Scheduled to be released in Winter 2016



AJ-HVF21G
50.8 mm (2 inches) HD EVF
59.94 Hz/50 Hz Switchable
Not available in some areas.



AJ-HVF21KG
50.8 mm (2 inches) HD EVF
59.94 Hz/50 Hz Switchable
Not available in some areas.



AG-CVF15G
87.6 mm (3.45 inches) Color HD EVF
Open two ways for LCD monitor viewing



AG-CVF10G
87.6 mm (3.45 inches) Color HD EVF
Open one way for LCD monitor viewing



AK-HVF70G
17.8 cm (7 inch) LCD Color Viewfinder



AJ-MC700P
Microphone Kit (monaural)



SHAN-TM700
Tripod Adapter

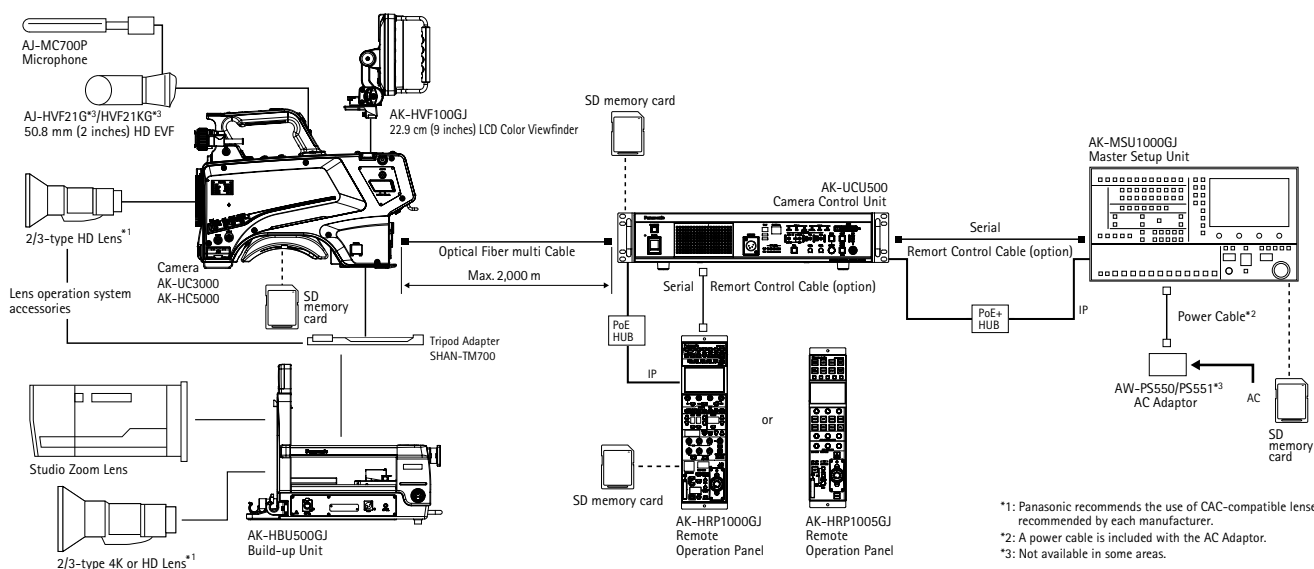


AW-PS550/PS551
AC Adaptor
Not available in some areas.



AJ-C10050G
Remote Control Cable
(50 m / 164 feet)

System Configuration



Specifications

As of July, 2016

AK-UC3000GJ/UC3000GSJ AK-HC5000GJ/HC5000GSJ

Power Supply	DC 12 V (when using an external power supply) AC 240 V, 50 Hz/60 Hz (when AK-UCU500P/AK-UCU500PS/ AK-UCU500E/AK-UCU500ES is connected)
Power Consumption	119 W (maximum, when connecting to an external 12 V and including supply to an externally connected devices) 360 W (maximum, when AK-UCU500P/AK-UCU500PS/ AK-UCU500E/AK-UCU500ES is connected and including supply to an externally connected devices)
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)
Operating Humidity	85% or less (relative humidity)
Weight	Approx. 4.4 kg (9.70 lbs.) (body only, excluding the accessories)
Dimensions (W x H x D)	Body only 151 mm x 267 mm x 371.5 mm (5-31/32 inches x 10-17/32 inches x 14-21/32 inches) (excluding protrusions)
Pickup Device	AK-UC3000: 11 million pixels, CMOS x 1 AK-HC5000: 2/3-type, 2.2 million pixels, MOS x 3
Optical Filter	CC: 3200 K, 4300 K, 6300 K, Cross, Diffusion ND: CAP, Clear, 1/4, 1/16, 1/64
Lens mount	2/3-type bayonet
Sensitivity	Two shooting modes AK-UC3000: [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% AK-HC5000: [HIGH SENS]: F11 (59.94 Hz)/F12 (50 Hz) [NORMAL]: F8 (59.94 Hz)/F9 (50 Hz) 2000 lx, 3200 K, when white reflectivity is 89.9%
Horizontal Resolution	AK-UC3000: 4K: 1800 TV lines or above (center, AK-UCU500P/ AK-UCU500PS/AK-UCU500E/AK-UCU500ES output) HD: 1000 TV lines or above (center) AK-HC5000: 1000 TV lines or above (center)
S/N	60 dB or above
Horizontal Modulation	50% or above (27.5 MHz)
Gain switching	AK-UC3000: [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 AK-HC5000: [NORMAL]: -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	<ul style="list-style-type: none"> • [59.94i]/[59.94p] mode: 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 • [29.97p] mode: 1/60, 1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 • [23.98p] mode: 1/48, 1/60, 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: 1/50, 1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000
<HD SDI1> terminal	BNC x 1 HD (3G/1.5G): 0.8 V [p-p], 75 Ω
<HD SDI2> terminal	BNC x 1 HD (3G/1.5G): 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>: HD (1.5G) <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 BB (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-UCU500P/ AK-UCU500PS/ AK-UCU500E/AK-UCU500ES is connected
<MIC 1> terminal	XLR x 1, 3-pin <LINE>/<MIC>/<+48 V> 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 <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 Switchable with <MIC 1> terminal
<INTERCOM1> terminal	XLR x 1, 5-pin
<INTERCOM2> terminal	XLR x 1, 5-pin
<EARPHONE> terminal	Stereo mini jack x 1, 3-pin
<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
<USB2.0> terminal (host)	Type A connector, DC 5 V, 0.5 A
Build-up terminal	20-pin x 1

Rear View



Specifications

As of July, 2016

AK-UCU500PJ/UCU500EJ/UCU500PSJ/UCU500ESJ

Power Supply	AK-UCU500P/AK-UCU500PS: 100 V - 120 V AC, 50 Hz/60 Hz AK-UCU500E/AK-UCU500ES: 100 V - 240 V AC, 50 Hz/60 Hz
Power Consumption	500 W (Without camera connected: 70 W)
Capacity for Supplying Power to a Camera	240 V AC (tolerance: 5%), 1.46 A , 50 Hz/60 Hz
Operating Temperature	0°C to 40°C (32°F to 104°F)
Humidity	10% to 90% (no condensation)
Weight	Approx. 8.8 kg (19.4 lb)
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/SD-SDI: 7 lines (embedded audio is supported only for HD signals) HD/SD-SDI: 1 line (shared with picture monitor output*1 ; embedded audio is supported only for HD signals) Analog composite: 2 lines (1 line shared with picture monitor output*1)
HD TRUNK Output	HD-SDI: 1 line (cannot be used in UHD/HS mode)
Return Input	3G-HD/HD/SD-SDI: 4 lines (RET1 input has active-through output) Analog composite: 1 lines
Prompter Input	HD-SDI: 1 line (with active-through output) Analog composite: 2 lines (through output of 1 and input of 2 share the connector*1) It is not terminated when the unit is turned OFF. No through output.
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
AUX	WFM control 6-bit (open collector output, terminal shared with camera microphone gain setting*1) Camera microphone gain setting input 5-bit (photo-coupler input, terminal shared with WFM control*1) Down-conversion system setting input 2-bit (photo-coupler input)
TRUNK	RS-422 / RS-232C 2 lines*1
FRONT ROP	RS-422 1 line, 16 V DC output (only one of this and REAR ROP can be selected at one time via the menu or the [ROP FRONT/ REAR] selection switch on the front panel)
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*3 1 line, 100BASE-T, 1000BASE-T
LAN	Personal computer connection for distribution via the Web*3 1 line, 10BASE-T, 100BASE-TX (use a crossover cable when connecting directly with a personal computer)

AK-HRP1000GJ/HRP1005GJ

	AK-HRP1000GJ	AK-HRP1005GJ
Power Supply	12 V DC (Power supply from camera: 10 V - 16 V DC) 42 V - 57 V DC (PoE power supply)	
Power Consumption	0.51 A (Power supply from camera: 10 V - 16 V DC) 0.15 A (PoE power supply)	0.44 A (Power supply from camera: 10 V - 16 V DC) 0.11 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. 1.7 kg (3.75 lb)	Approx. 1.5 kg (3.31 lb)
Dimensions (W x H x D)	102 mm x 385 mm x 113 mm (4 inches x 15-3/16 inches x 4-7/16 inches)	82 mm x 355 mm x 124.4 mm (3-1/4 inches x 14 inches x 4-7/8 inches)
Camera/CCU Control	Control signals (camera, CCU control) Power supply 16 V DC (when CCU connected)*4, 12 V DC (when camera connected)*4	
Maximum Cable Length	When camera connected: 20 m (65.7 ft) When CCU connected: 50 m (164 ft)	

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 (-4°F to 140°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)	486 mm x 222 mm x 81.5 mm (19-5/32 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	Power DC 12 V (DC 10 V - DC 17 V) or PoE+ (via PoE+ Hub)
Maximum Cable Length	When CCU connected: 50 m (164 ft)

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% - 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	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

AK-HBU500GJ

Power Supply	12 V DC (when external power is supplied) 240 V AC 50 Hz/60 Hz (when AK-UCU500 is connected)
Power Consumption	70 W (when external power is supplied) 165 W (when AK-UCU500 is connected)
Operating Temperature	-10°C to 45°C (14°F to 113°F)
Operating Humidity Range	85% or less (relative humidity)
Storage Temperature	-20°C to 60°C (-4°F to 140°F)
Weight	Approx. 12.8 kg (28.22 lb) (unit only)
Dimensions (W x H x D)	300 mm x 417 mm x 510 mm (16-7/16 inches x 20-1/16 inches x 11-13/16 inches)
Camera Number Display	1 to15 (depending on system settings)
LENS I/F Connector	36-pin x 1
CAMERA I/F Connector	20-pin x 1
[DC IN] Connector	XLR x 1, 4-pin, 12 V DC
[DC OUT 12 V 1.5 A] Connector	4-pin x 1
[DC OUT 12 V 7.5 A] Connector	XLR x 1, 4-pin

*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: IP video cannot be transmitted when [CCU MODE] is set to [2160/23.98p], [2160/23.98PsF], [1080/23.98p], or [1080/23.98PsF].

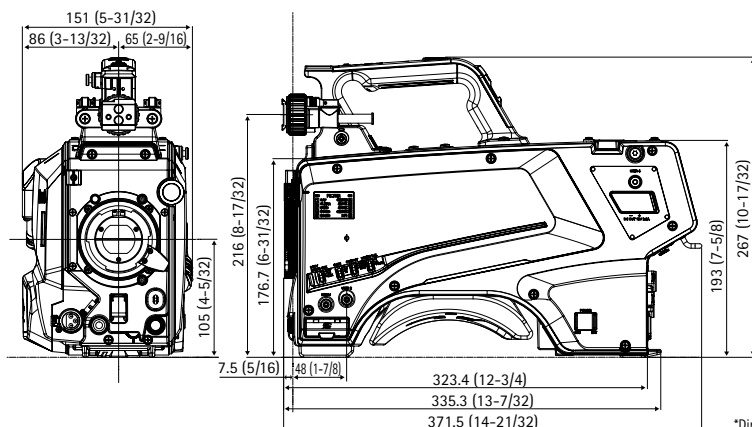
*4: Can be provided from CCU

Dimensions

As of July, 2016

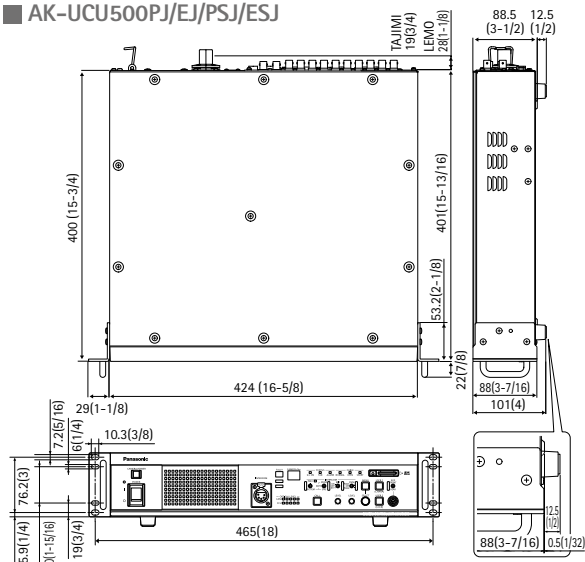
Unit: mm(inches)

■ AK-UC3000GJ/UC3000GSJ/AK-HC5000GJ/HC5000GSJ

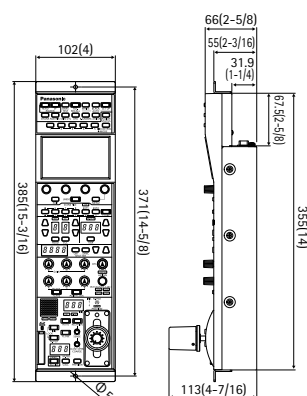


*Dimensions above are for the AK-UC3000.

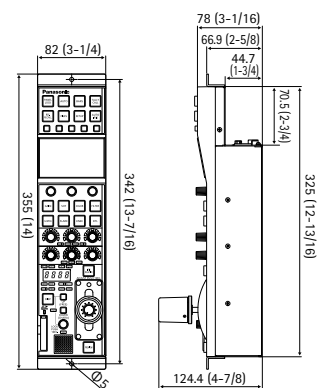
■ AK-UCU500PJ/EJ/PSJ/ESJ



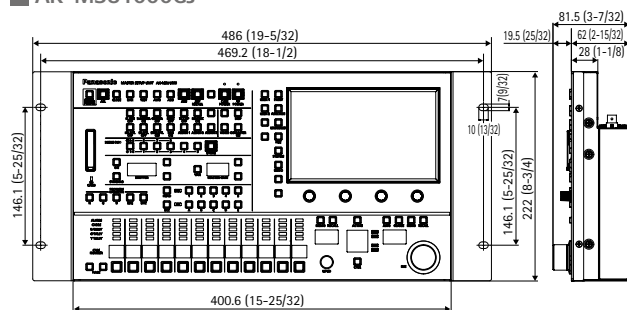
■ AK-HRP1000GJ



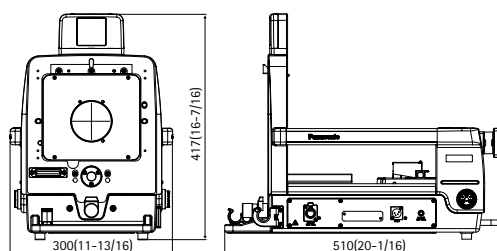
■ AK-HRP1005GJ



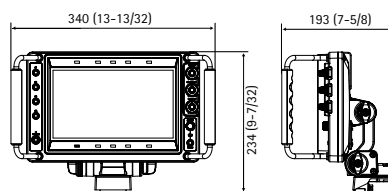
■ AK-MSU1000GJ



■ AK-HBU500GJ



■ AK-HVF100GJ



Please refer to the latest Non-linear Compatibility Information, P2 Support, Download and Service Information, etc. at the following Panasonic web site.



<http://pro-av.panasonic.net/>

Panasonic®

[Countries and Regions]

Panasonic Corporation
AVC Networks Company
 1-15 Matsuo-cho, Kadoma, Osaka 571-8504
 Japan
<http://pro-av.panasonic.net/>

Argentina	+54 11 4122 7200	Malaysia	+60 3 7809 7888
Australia	+61 (0) 2 9491 7400	Mexico	+52 55 5488 1000
Brazil	+55 11 3889 4035	Mongolia	+976 70115577
Canada	+1 905 624 5010	Netherlands, Belgium	+31 73 640 2729
China	+86 10 6515 8828	New Zealand	+64 9 272 0100
Hong Kong	+852 2313 0888	Norway	+47 67 91 78 00
Czech Republic	+421 (0) 903 447 757	Pakistan	+92 21 111 567 111
Denmark	+45 43 20 08 57	Palestine	+972 2 2988750
Egypt	+20 2 23938151	Panama	+507 229 2955
Finland, Latvia, Lithuania, Estonia	+358 (9) 521 52 53	Philippines	+65 6277 7284
France	+33 (0) 1 47 91 64 00	Poland	+48 (22) 338 1100
Germany, Austria, Switzerland	+49 (0) 6103 313887	Portugal	+351 21 425 77 04
Greece	+30 210 96 92 300	Romania, Albania, Bulgaria, Macedonia	+40 (0) 729 164 387
Hungary	+36 (1) 382 60 60	Russia & CIS	+7 495 9804206
India	+91 1860 425 1860	Saudi Arabia	+966 (1) 4790499
Indonesia	+65 6277 7284	Singapore	+65 6277 7284
Iran		Slovak Republic, Croatia, Serbia, Bosnia, Montenegro, Slovenia	+421 (0) 903 447 757
(Vida)	+98 21 2271463	South Africa	+27 11 3131622
(Panasonic Office)	+98 2188791102	Spain	+34 (93) 425 93 00
Italy	+39 02 6788 367	Sweden	+46 (8) 680 26 41
Jordan	+962 6 5859801	Taiwan	+886 2 2227 6214
Kazakhstan	+7 727 298 0891	Thailand	+662 731 8888
Korea	+82 2 2106 6641	Turkey	+90 216 578 3700
Kuwait	+96 522431385		
Lebanon	+96 11665557		

U.A.E. (for All Middle East)

	+971 4 8862142
Ukraine	+380 44 4903437
U.K.	+44(0)1344 70 69 13
U.S.A.	+1 877 803 8492
Vietnam	+65 6277 7284



JQA-0443



Factories of AVC Networks Company have received ISO14001:2004-the Environmental Management System certification. (Except for 3rd party's peripherals.)