Panasonic
BUSINESS

AK-UB300GJ
4K Multi Purpose Camera

Compact and light
4K Multi Purpose Camera

*12G-SDI and TICO are supported via the option boards.

* Lens sold separately

4K Multi Purpose Camera with UHD/HD Simultaneous Output and 2/3 type lens mount

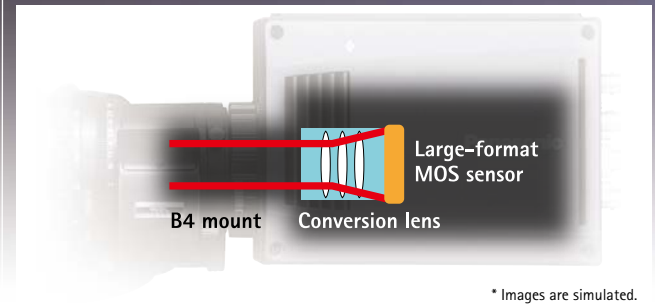
4K PROFESSIONAL HDR
12G SDI
TICO

* 12G-SDI and TICO are supported via the option boards.

This 4K multipurpose camera shows its potential in a wide range of situations, from live sports and other event broadcasting to studio recording and aerial shooting. Two sensitivity modes (high sensitivity and normal) can be selected according to the shooting environment. The usability has also greatly improved through haze reduction technology and transmission with a single cable operation is possible when the 12G Output Board is replaced with 3G TICO UHD Output Board. This camera comes standard with the HDR (High Dynamic Range) function that is equipped on Panasonic Studio Cameras. Our original HDR adjustment function makes possible video expression with a higher level of realism. Additionally, AK-UB300GJ is also equipped with the focus assist function as well as an HD cropping function from 4K video. It can also perform HD-IP streaming output and IP control so the system can be centrally managed with Studio Camera AK and Integrated Camera AW series, enabling flexible and expandable utilization.

■ 4K Optical System

The 4K large format sensor can use 2/3 type lens without an adapter, and the conversion lens designed for large format sensor realizes the excellent video quality. Its new optical system makes maximum use of incident light to achieve the wide dynamic range.



* Images are simulated.

■ UHD/HD Simultaneous Output

Supports simultaneous UHD/HD output, which enables to select the video output according to the application. Following formats are supported.

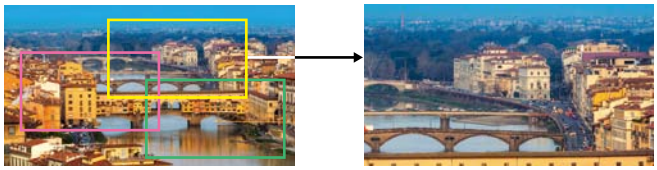
Supported formats

UHD	3840 x 2160/60p, 3840 x 2160/59.94p, 3840 x 2160/29.97p, 3840 x 2160/23.98p, 3840 x 2160/29.97PsF, 3840 x 2160/23.98PsF, 3840 x 2160/50p, 3840 x 2160/25p, 3840 x 2160/25PsF
UHD_CROP (Cropping function system format)	1080/59.94p_CROP, 1080/59.94i_CROP, 1080/50p_CROP, 1080/50i_CROP
HD	1080/60p, 1080/59.94p, 1080/59.94i, 1080/29.97PsF, 1080/23.98PsF, 1080/23.98p, 1080/50p, 1080/50i, 1080/25PsF, 720/60p, 720/59.94p, 720/50p

Cropping Function

In addition to capturing the entire scene, up to three specified areas in the scene can be cropped and displayed. The area specified can be instantly switched using the controller.

* See the system formats for use with the cropping function as indicated in the Supported Formats table above to the right.

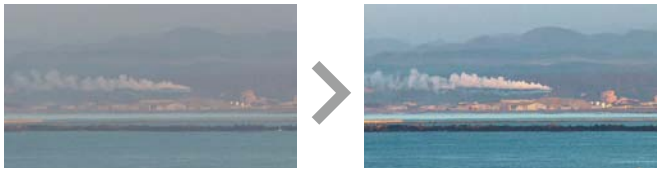


Select and output one of three areas

* Images are simulated.

Haze Reduction Function

For installations in places where haze tends to occur, this function performs correction for a subject with low contrast to make the image clearer. Three settings can be selected for the compensation level.

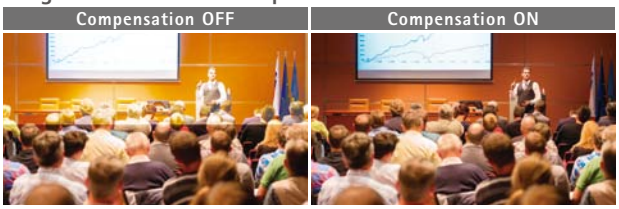


* Images are simulated.

Flash Band Compensation*1

Using a high-precision flash band detection and compensation function for the camera signal processing LSI, enables elimination of the flash band phenomenon (light and dark areas appearing in the same frame) that occurs when a flash goes off during shooting.

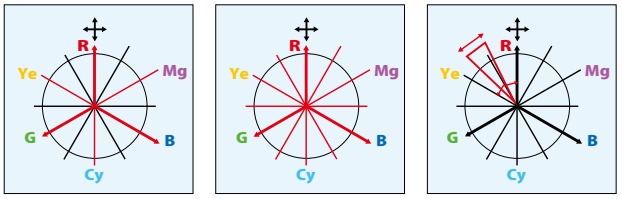
Images of flash band compensation



* Images are simulated.

Wide Range of Color Correction Functions

Color saturation and hue can be finely adjusted individually by 12-axis color correction and linear matrix. Moreover, an independent skin color adjustment function (SKIN CORRECTION) enables fine color expression.

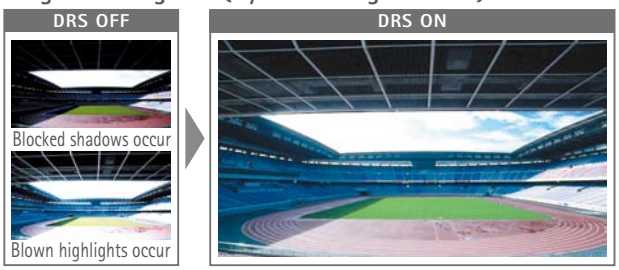


Linear matrix | 12-axis color correction | Skin color correction

Dynamic Range Stretch (DRS) Function*1

The DRS function automatically suppresses blocked shadows and blown highlights. When dark and bright areas are present 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. This minimizes blocked shadows, blown highlights, and washed out colors. As a result, it is possible to obtain in real time video with a visually wide dynamic range.

Images showing DRS (Dynamic Range Stretch) effect

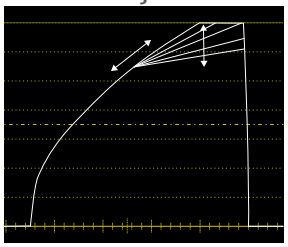


* Images are simulated.

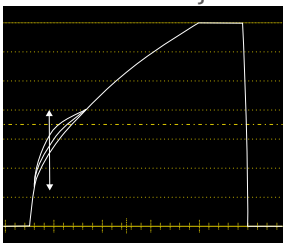
HDR Video Adjustment Functions

Using the HDR video knee and black gamma functions, it is now possible to adjust contrast from dark areas to highlights. In addition to UHD HDR/SDR output selection, HD HDR/SDR simultaneous output is possible. Simultaneous operation is also supported.

HDR Knee Adjustment



HDR Black Gamma Adjustment



* Diagrams are simulated.

*1: Cannot be utilized when the camera system is in UHD or UHD CROP mode.
*2: For details, see the Panasonic website (https://pro-av.panasonic.net/en/products/newtek_autolink/).

Intelligent Automatic Adjustment Function

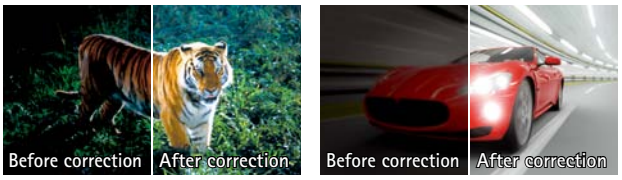
•Auto Tracking White Balance Function

This function automatically adjusts the white balance as the color temperature gradually changes when shooting outdoors. Images can be automatically adjusted according to the subject or time of day.

* Images are simulated.

•Automatic Gain Control (AGC)

In addition to automatic iris control, continuous automatic variable gain control (-6 dB to 36 dB) is also possible. In addition to normal mode, modes with priority on movement (SPORTS mode) and image quality (SN mode) can also be selected.



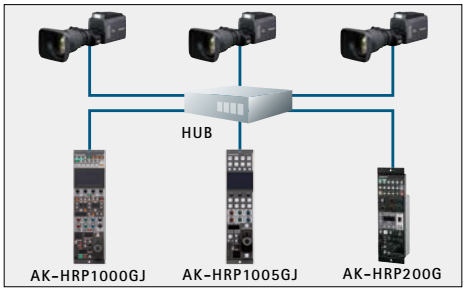
Automatically controls variable gain in dark scenes

Movement is given priority for subjects in motion

* Images are simulated.

IP Control from Remote Operation Panel and Remote Camera Controller

Serial control and IP control can be performed from the camera by connecting an AK-HRP200G/AK-HRP1000GJ/ AK-HRP1005GJ Remote Operation Panels (ROP) and AW-RP50 Remote Camera Controller. The compact operation panel enables smooth remote control.



Scan Reverse Shooting

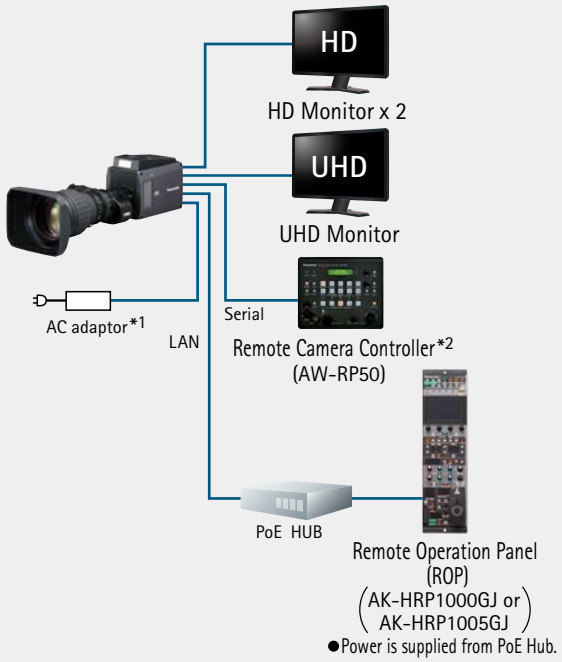
Image can be displayed reversed vertically or horizontally by setting this mode.

Linkage with NewTek AutoLink for Panasonic PTZ Software

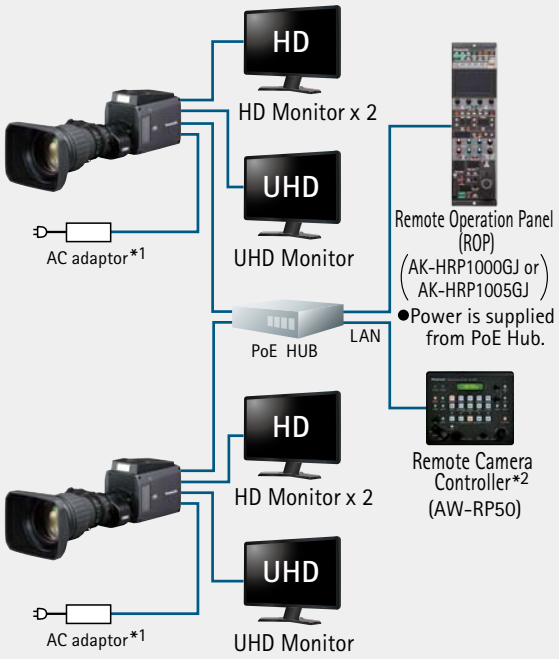
"NewTek AutoLink for Panasonic PTZ"*2, can be downloaded from the website to allow Panasonic professional cameras equipped with IP streaming to be automatically detected on the network from a NewTek TriCaster® or IP series Video Mix Engine produced by NewTek, Inc., enabling direct use of IP streaming from cameras.

System Configuration

One camera and one controller



Multiple cameras from a single controller



*1: 60 W or more is recommended.
*2: Camera control and cropping are available.

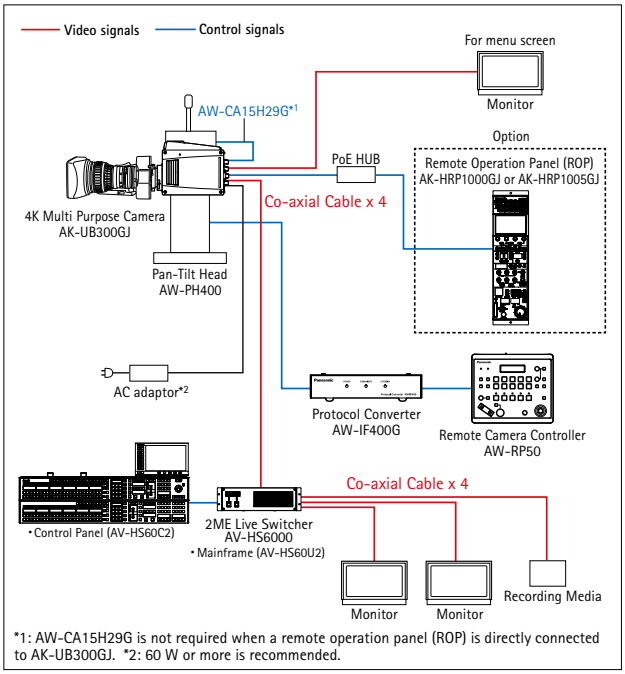
■ Optional Products

As of January, 2019

Indoor pan-tilt head suitable for production work requiring quiet and fast revolution.

Pan-Tilt Head
AW-PH400

Example of system configuration with AW-PH400 Pan-Tilt Head connected



*1: AW-CA15H29G is not required when a remote operation panel (ROP) is directly connected to AK-UB300GJ. *2: 60 W or more is recommended.

* Some functions are restricted when AW-PH400 Pan-Tilt Head is connected. * When using AW-PH400 with AK-UB300GJ, please contact your regional dealer.

Option Boards

12G Output Board 12G SDI
AK-UHD12G

- Output: UHD: 2 outputs (12G) or 1 output (3G x 4)
  HD: 2 outputs

3G TICO UHD Output Board TICO
AK-UTS03G

- Output: UHD: 2 outputs (TICO)
  HD: 2 outputs

3G TICO & 12G to Quad 3G SDI Converter
AK-UGB01G

This unit converts the signal from AK-UTS03G (3G TICO UHD Output Board) to 3G x 4. It also converts 12G SDI signal to 3G x 4.

- Input: 1 input (12G or TICO)
- Output: 1 output (3G x 4)
  Switches between Square Division / 2 Sample Interleave and 3G Level A / 3G Level B.

Rear Panel

Specifications

AK-UB300GJ

As of January, 2019

General	
Power	DC12 V (DC11 V - 17 V)
Power Consumption	40 W (body only, when 3G SDI x 4 is output) 60 W (maximum power when all accessories are connected and each output terminal is outputting at maximum)
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. 1.6 kg (3.53 lbs.) (body only)
Dimensions (W x H x D)	Body only 110 mm x 140 mm x 160 mm (4-11/32 inches x 5-17/32 inches x 6-5/16 inches) (excluding protrusions)
Camera Unit	
Pickup Device	11 million pixels, MOS x 1
Lens Mount	2/3-type bayonet
ND filter	CLEAR, 1/4, 1/16, 1/64
Gain	–6, –3, 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36 dB
Total Gain	Selectable from 6, 12, 18, 24 dB
Shutter Speed	•[60p]/[59.94i]/[59.94p] mode:1/100, 1/120, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 seconds •[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 seconds •[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 seconds •[50i]/[50p] mode:1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 seconds •[25p] mode:1/48, 1/50, 1/60, 1/96, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/1500, 1/2000 seconds •180.0 deg, 172.8 deg, 144.0 deg, 120.0 deg, 90.0 deg, 45.0 deg
Synchro Scan Shutter	•[60p]/[59.94i]/[59.94p] mode:1/61.7 to 1/6130 seconds •[29.97p] mode:1/30.9 to 1/2600 seconds •[23.98p] mode:1/24.7 to 1/2880 seconds •[50i]/[50p] mode:1/51.5 to 1/6250 seconds •[25p] mode:1/25.7 to 1/3130 seconds
Shutter Open Angle	3 deg to 359.5 deg (can be set in 0.5 deg steps)
Sensitivity	[NORMAL]: F6 (2000 lx, 3200 K, 89.9% reflection, 1080/59.94i)/F7 (2000 lx, 3200 K, 89.9% reflection, 1080/50i) [HIGH SENS]: F10 (2000 lx, 3200 K, 89.9% reflection, 1080/59.94i)/F11 (2000 lx, 3200 K, 89.9% reflection, 1080/50i)
Minimum Subject Brightness	Approx. 0.01 lx (50%, F1.4, +36 dB (gain), +24 dB (total gain), 29.97p/59.94 Hz, 25p/50 Hz)
Image S/N	60 dB (standard) ([DNR] = [ON])
Horizontal Resolution	HD: 1000 TV lines or above (center) UHD: 1800 TV lines or above (center)
System Format	
Supported Format	UHD: 3840 x 2160/60p, 3840 x 2160/59.94p, 3840 x 2160/29.97p, 3840 x 2160/23.98p, 3840 x 2160/29.97PsF, 3840 x 2160/23.98PsF, 3840 x 2160/50p, 3840 x 2160/25p, 3840 x 2160/25PsF
	HD: 1080/60p, 1080/59.94p, 1080/59.94i, 1080/29.97PsF, 1080/23.98PsF, 1080/23.98p (over 59.94i), 1080/50p, 1080/50i, 1080/25PsF, 720/60p, 720/59.94p, 720/50p
Video Input/Output	
[HD SDI OUT 1] Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
[HD SDI OUT 2] Terminal	BNC x 1 1.5G SDI: 0.8 V [p-p], 75 Ω
[UHD/HD SDI OUT 1] Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
[UHD/HD SDI OUT 2] Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
[UHD/HD SDI OUT 3] Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
[UHD/HD SDI OUT 4] Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
Other Input/Output	
[G/L IN] Terminal	BNC x 1, 1.0 V [p-p], 75 Ω
[I/F] Terminal	D-SUB x 1, 15-pin
[TALLY OUT] Terminal	4-pin x 1
[IRIS] Terminal	12-pin x 1
[ZOOM/FOCUS] Terminal	12-pin x 1
[LAN] Terminal	100BASE-TX/10BASE-T
[DC IN] Terminal	XLR x 1, 4-pin, DC12 V (DC11 V – 17 V)

AK-UGB01G (Option)

As of January, 2019

General	
Power	DC 12 V (DC 11 V - 17 V)
Power Consumption	11 W
Operating Ambient Temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage Temperature	–20 °C to 60 °C (–4 °F to 140 °F)
Operating Ambient Humidity	85% or less (relative humidity)
Weight	Approx. 1.4 kg (3.1 lbs.)
Dimensions (W x H x D)	215 mm x 40 mm x 230 mm (8-15/32 inches x 1-9/16 inches x 9-1/16 inches) (excluding the setting legs and protrusion)
Video Input/Output	
<UHD SDI IN> Terminal	BNC x 1 12G/6G/3G/1.5G SDI: 0.8 V [p-p], 75 Ω
<UHD SDI OUT 1> Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
<UHD SDI OUT 2> Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
<UHD SDI OUT 3> Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
<UHD SDI OUT 4> Terminal	BNC x 1 3G/1.5G SDI: 0.8 V [p-p], 75 Ω
Other Input/Output	
<DC IN> Terminal	XLR x 1, 4-pin, DC 12 V (DC 11 V – 17 V)
Supported Format	
Input	UHD: 3840 x 2160/60p, 3840 x 2160/59.94p, 3840 x 2160/29.97p, 3840 x 2160/23.98p, 3840 x 2160/50p, 3840 x 2160/25p
Output	UHD: 3840 x 2160/60p, 3840 x 2160/59.94p, 3840 x 2160/29.97p, 3840 x 2160/29.97PsF, 3840 x 2160/23.98p, 3840 x 2160/23.98PsF, 3840 x 2160/50p, 3840 x 2160/25p, 3840 x 2160/25PsF

Optional Products

Remote Camera Controller

AW-RP50

Remote Operation Panel (ROP)

AK-HRP200G

Remote Operation Panel (ROP)

AK-HRP1000GJ
AK-HRP1005GJ

Protocol Converter

AW-IF400G

Using the AW-RP50, the AW-PH400 indoor pan-tilt head can be operated.
The maximum operation distance can be extended to 1,500 m.

Cable for Indoor Pan-tilt Head Connection

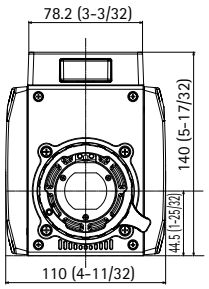
AW-CA15H29G

Rear Panel

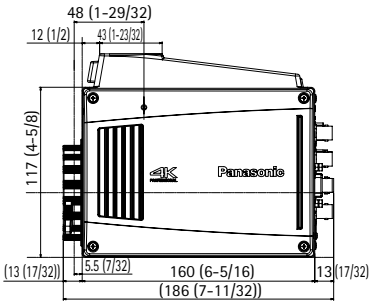
Dimensions

Unit: mm (inches)

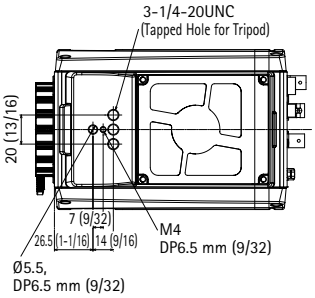
(Front)



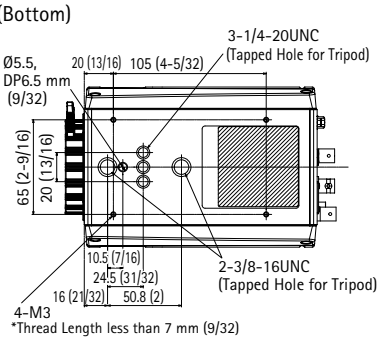
(Side)



(Top)



(Bottom)



* Specifications are subject to change without notice.

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Factories of AVC Networks Company have received ISO14001:2004-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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