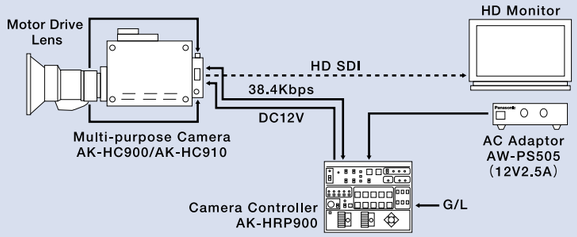
Examples of Camera System

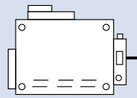
Simple Studio system



Format Configurations of Multi-purpose Cameras

AK-HC900

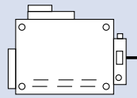
AK-HC900 Camera Head
720P 1 Million pixels IT 3CCD



Native 720P
Output :720P SDI
RGB／Y,Pb,Pr

AK-HC910

AK-HC910 Camera Head
1080i 2.2 Million pixels FIT 3CCD



Native 1080i
Output:1080i SDI
RGB／Y,Pb,Pr

SPECIFICATIONS

		AK-HC900	AK-HC910
CCD		2/3" 1 Million Pixels IT 3CCD	2/3" 2.2 Million Pixels FIT 3CCD
Image sensing method		GBR Image sensing method	
Total number of pixels		1370 (H) ×744 (V)	2010 (H) X1086 (V)
Effective number of pixels		1280 (H) ×720 (V)	1920 (H) X1080 (V)
Optical prism		F1.4 Prism	
Optical filter	CC	3200K、4300K、6300K、Cross	
	ND	100%、25%、6.3%、3.2%	
Lens mount		Bayonet type	
Sensitivity		F10 at 2000 lux 3200K 89.9% white	
Minimum Illumination		0.03 lux (F1.4 62dB)	0.15 lux (F1.4 48dB)
Gain		0/+9/+18/+30/+42/+54/+62dB (by the addition of multiple pixels and controlling the storage time)	0/+9/+18/+30/+42/+48dB
S/N		54dB (HD)	
Smear		Less than -130dB	Less than -135dB
M.T.F		45% (27.5MHz)	
Storage temperature		-4˚F to 140˚F (-20℃ to +60℃)	
Operating temperature		32˚F to 104˚F (0℃ to +40℃)	
Power consumption		Approx. 20W (DC12V)	
Dimentions (W×H×D)		Approx. 4-3/8"×4-7/8"×7-1/8" (110×125×180mm)	
Weight		Approx. 3.9 lbs (1.8kg)	

Panasonic

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Panasonic

AK-HC900

Multi-purpose Progressive Scan HD Camera

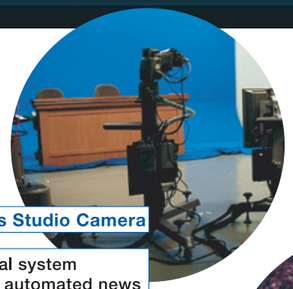
AK-HC910

Multi-purpose Interlace Scan HD Camera

Multi-purpose HD camera System

Multi-purpose HD cameras featuring high-sensitivity and low-power consumption.

Panasonic introduces a new series of compact, lightweight cameras featuring a power-saving design and high sensitivity. Two models are available; the AK-HC900, with progressive scan output (720p/60fps) IT 3-CCD, and the AK-HC910, with interlace scan output (1080i/60) FIT 3-CCD.



News Studio Camera

An economical system suitable for a automated news studio.

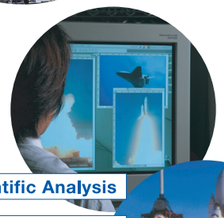
Weather Information Camera

Install in an environmental housing, for an all-weather camera.

Low Light Environments

Extremely high sensitivity provides a minimum required illumination of 0.03 lux*.

*at +62 dB gain (AK-HC900)



Scientific Analysis

Use the camera as an image-capturing device for computer image analysis. (AK-HC900)

AK-HC900 (Progressive)
AK-HC910 (Interlace)

Multi-Purpose Design with an Eye toward the Future

The AK-HC900 series multi-purpose camera lineup consists of the AK-HC900 featuring a 1 M-pixel IT progressive scan 3-CCD for 720p/60fps applications and the AK-HC910, featuring an interlace scan 2.2 M-pixel FIT 3-CCD for 1080i/60 applications.

	AK-HC900	AK-HC910
CCD	1 M-pixel IT 3-CCD	2.2 M-pixel FIT 3-CCD
1080i		●
720P	●	

* at maximum gain of +62 dB for the AK-HC900

Minimum illumination of 0.03 lux* ensures clear image in low light environments.

- For both AK-HC900 and AK-HC910 gain can increased to +48 dB by a conventional signal amplifier.
- In addition the AK-HC900, which features a exceptionally high sensitivity 1 M-pixel IT 3-CCD imager, provides two additional types of gain enhancement.
  - A new CCD drive circuit and frame memory circuit, permits gain to be enhanced up to +12 dB by summation of pixels in both horizontal and vertical directions.
  - Gain enhancement of up to +20 dB is possible by increasing the CCD storage time across several reference timing frames (reducing the frame update rate from 60fps to 6fps).

Original source

AK-HC900 Output (simulated image)

Minimizing environmental impacts through low power consumption and a compact footprint.

Reduced parts count, low power consumption and compact design, have a positive influence on operating environment.

- With a newly designed CCD drive circuit, power consumption has been cut to nearly half of conventional models, and a low power consumption DSP is also employed. As a result total power consumption, including the HD-SDI output circuit, is approximately 20W, similar to existing SD cameras.
- The number of parts used has been reduced to half that of conventional models; and the weight of structural parts has also been reduced. As a result, an approximately 4 pounds (1.8kg) weight of the main unit has been achieved (including a pair of internally mounted ND-CC optical filters).
- A compact design is advantageous for use with a housing or when installed on a pan-tilt head.

Cost effective camera systems.

- The AK-HC900 features a 1 M-pixel progressive scan IT 3-CCD imager and boasts superb motion rendition, sensitivity and cost effectiveness.

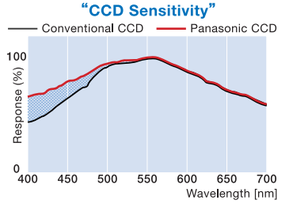
Output frame of AK-HC900 progressive scan system

1/60 sec

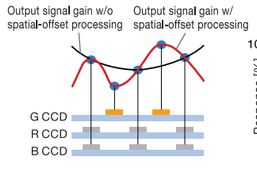
High Definition CCD provide exceptional image quality, sensitivity and minimum smear.

- The most critical component of any camera system, Panasonic's latest generation CCD technology features on-chip micro-lenses and improved CCD structure to achieve an astonishing standard sensitivity exceeding F10 at 2000 lux, with an image smear specification of less than -130 dB (-135 dB for the AK-HC910).

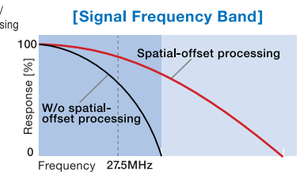
Blue channel sensitivity has been improved approximately 3 dB achieving a better response ratio. Even deep-blue colors can be reproduced with a vivid chrominance and significantly reduced noise.



- Panasonic's Single-channel Transfer System and Spatial-offset Processing technologies provide improved depth of modulation in high-frequency signal areas, higher resolution and reduced moire.



Spatial-offset processing: Green samples are offset, allowing motion in the object to be more faithfully reproduced.



With spatial-offset processing, the depth of modulation of high frequency signals is greatly improved.

High performance digital signal processing (DSP).

- Enhanced DTL signal processing in horizontal and vertical directions, as well diagonally both in dark and brightly lit areas of the image, ensures high picture quality with minimal noise.
- The 12 vector variable masking circuit allows precise and independent hue and saturation adjustment of individual colors.
- A chrominance retain circuit prevents color de-saturation in brightly lit scene areas.

Original Image

Color corrected (simulated image)

* Color correction restricted to the red colors.