

Panasonic

ideas for life

2006/4

Multi-purpose HD Box Camera
AK-HC1500

*A New Compact Camera for Broadcasting and Other Various Uses.
Compatible with All HD Video Formats.*



MULTI FORMAT
DIGITAL CAMERA SYSTEM

Multi-format support for worldwide HD video from broadcasting to live relays to scientific analysis, this compact camera does it all.



Sports relays
Small size and light weight make the AK-HC1500 easy to mount and operate on a pan-tilt head.

News studio camera
An economical system suitable for an automated news studio.

Weather camera
Place the AK-HC1500 inside a splashproof housing, and it serves as an all-conditions camera for use in weather forecasting.

Monitoring and low-light recording
● Ideal for capturing images for use in computer image analysis.
● Exceptionally high sensitivity allows shooting in lighting as low as 0.015 lx*. *At +72 dB gain

HD multi-format support for broadcasting and a host of other uses

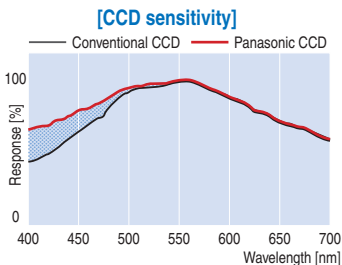
The industry's first compact multi-format HD camera, the versatile AK-HC1500 handles everything from news studio work to live sports relays to image analysis for scientific applications. A unique, Panasonic-developed 1-megapixel IT-CCD, the 2/3-inch CCD size needed for broadcast-quality images. Select from a wide variety of lenses to meet your specific needs.

HD multi-format support

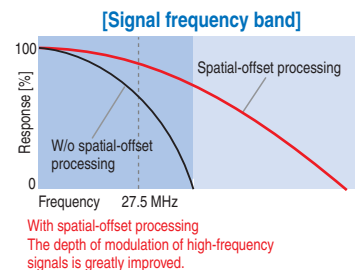
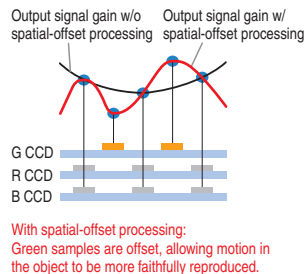
1080 60i/59.94i/50i/30p/25p/24p	720 60p/59.94p/50p
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High picture quality achieved by a new CCD and digital signal processor developed by Panasonic

● Developed by Panasonic, this advanced CCD offers improved on-chip lenses performance to achieve a standard sensitivity of F10.0 at 2 000 lx and a smear level of less than -130 dB.



● Panasonic's single-channel transfer system and spatial-offset processing technologies improve signal modulation depth, thus reducing moire.

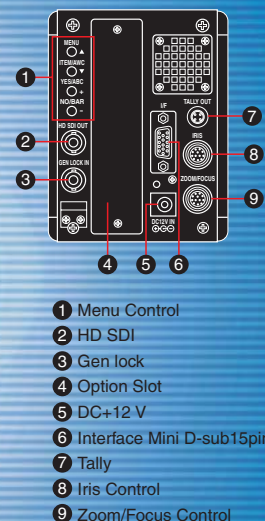


14-Bit A/D converter and new DSP provide clear, sharp images from dark to bright areas

The AK-HC1500 delivers clear, high-contrast images thanks to a 14-bit A/D converter and a new adaptive function that varies the gamma correction to match the contrast within the image. In addition to the conventional matrix circuit, there is the 12-vector variable masking circuit that separately optimizes saturation and hue. A hue preservation circuit is also provided to prevent color loss in highlight areas.

Before correction	After correction
<p>When the gamma curve is adjusted based on bright areas of the image, black blocking occurs.*</p>	<p>When adjustment is based on dark areas, some image parts are washed out.*</p>
<p>*Photos show an approximate image.</p>	
<p>Clear, sharp reproduction of both bright and dark areas.*</p>	

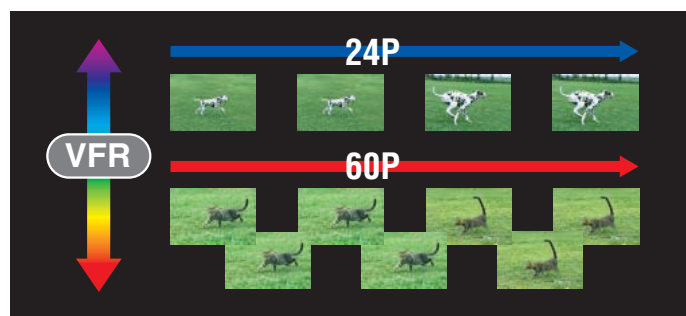
The worldwide shift to HD has created demand for a multi-format HD camera. Panasonic answers with the AK-HC1500, a compact, multi-purpose HD box camera that's compatible with all of the world's HD formats. Thanks to Panasonic development of all key devices — including a new 14-bit A/D converter, new digital signal processor, and 2/3-inch IT-CCD — the AK-HC1500 delivers both outstanding picture quality and solid reliability. From program production to sports relays to scientific analysis, this versatile, high cost-performance camera does it all, in any country in the world.



Features variable frame rate and a cine gamma curve

The AK-HC1500 debuts as the first multi-purpose camera to feature a variable frame rate function and a cine gamma curve. The variable frame rate allows the overcranking and undercranking speed effects that film cameras provide, and the cine gamma curve reproduces images with a tone similar to film recordings. With the AK-HC1500, you can create productions that closely replicate the cine-like feeling and expressivity of film productions.

- You can vary the number of frames per second (4 fps to 60 fps), just as you can with a film camera. This lets you use the distinctive undercranking and overcranking speed effects of film cameras.
- Thanks to a special cine gamma curve, the CCD can produce pictures with the same kind of tonal beauty, natural gradation and rich colors you get with film recordings.



The Variable Frame Rate function varies the number of frames shot per second.
*Photos show an approximate image.

CCD accumulative drive allows high sensitivity

- In addition to the conventional gain-up circuit, the AK-HC1500 uses CCD accumulation and horizontal/vertical addition to make possible a gain increase of up to +72 dB (for recording in illumination of at least 0.015 lx).
- CCD progressive drive minimizes afterimages from the accumulative drive process.



The Cine Gamma function captures video with a warm, film-like quality.*

Minimizing environmental impacts through low power consumption and a compact footprint

Fewer parts, low power consumption and a compact design make the AK-HC1500 an environment-friendly choice.

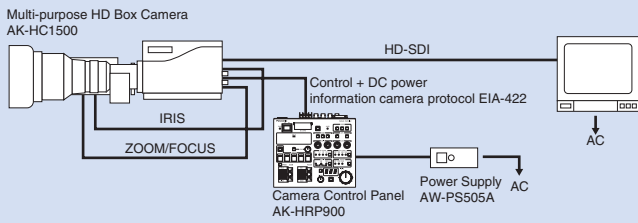
- The AK-HC1500 uses a newly designed CCD drive circuit that requires low power consumption and a DSP that consumes little power.
- Fewer parts are used, and the weights of structural parts have been reduced.
- Small size is a big advantage in cameras used for information gathering, set in a housing, or mounted on a pan-tilt head.

Yet more features

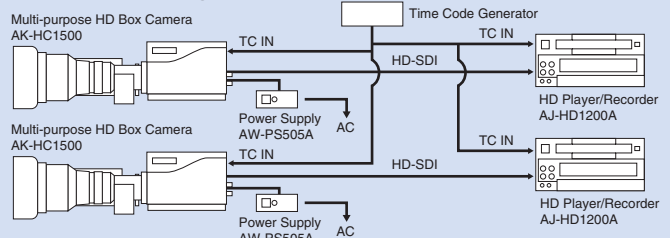
- Option slot for expansion. The rear option slot lets you add a variety of optional terminal boards making the AK-HC1500 suitable for use in a wider range of studio applications and with different kinds of network connections. you can also mount a down converter, analog output unit or other equipment.
- The Electronic Extender function, used in addition to the conventional lens extender, magnifies the image by 2x.

System example

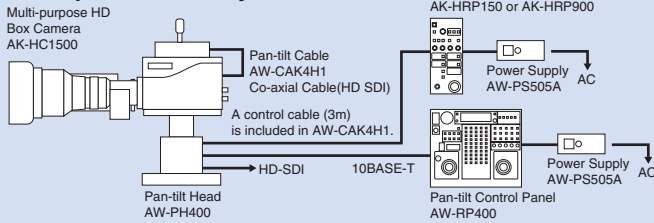
Camera control system



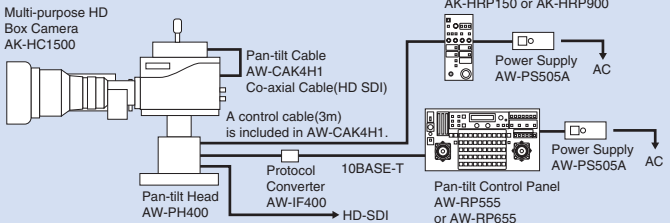
Multiple camera system



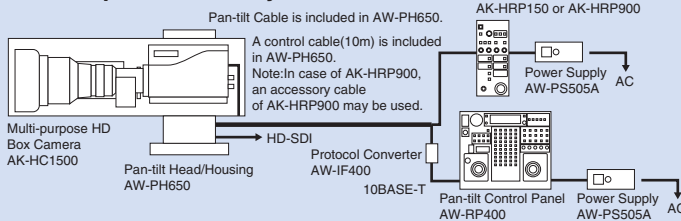
Indoor pan-tilt head system



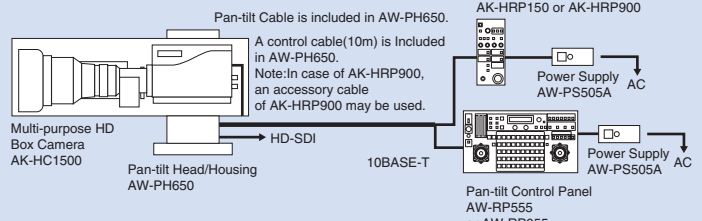
Note: Each system can be used for SD SDI system or SD VBS system when a down converter card is installed in Multi-Purpose HD Box Camera AK-HC1500.



Outdoor pan-tilt head system



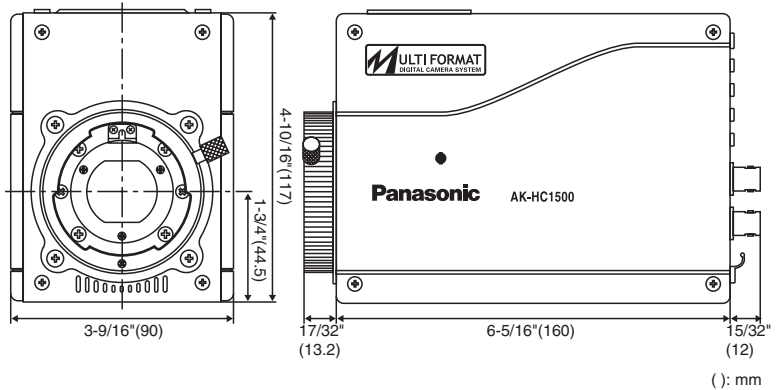
Note: Each system can be used for SD SDI system or SD VBS system when a down converter card is installed in Multi-Purpose HD Box Camera AK-HC1500.



Specifications

CCD	2/3" 1-megapixel IT-3CCD
Image sensing method	GBR Image sensing method
Total number of pixels	1 370(H)x744(V)
Effective number of pixels	1 280(H)x720(V)
Optical prism	F1.4 Prism
Optical filter	(ND)100 %, 25 %, 6.3 %, 1.6 %
Lens mount	2/3" Bayonet type
Output format	1080: 60i/59.94i/50i/30psF/29.97psF/25psF/24psF/23.98psF 720: 60p/59.94p/50p
Sensitivity	F10.0 at 2 000 lx
Minimum Illumination	0.015 lx(F1.4 / 68 dB)
Gain	72 dB
S/N	54 dB
Smear	Less than -130 dB
M.T.F.	45 % (27.5 MHz, 720 p / 60 p)
Synchronize System	Internal and external synchronization (Tri-level SYNC/Black Burst)
Input	GENLOCK: BNC x 1, Interface: Mini D-sub 15pin terminal
Output	HD-SDI: BNC x 1
Input/output	Lens aperture connector, lens zoom focus connector
Storage temperature	-4 °F to 140 °F (-20 °C to +60 °C)
Operating temperature	32 °F to 104 °F (0 °C to +40 °C)
Power consumption	Approx. 17 W(DC12 V)
Dimensions(WxHxD)	Approx. 3-9/16"x4-10/16"x6-5/16"(90 mmx117 mmx160 mm)
Weight	Approx. 3.3 lbs(1.5 kg)

(Dimensions)



Panasonic

Panasonic Broadcast & Television Systems Co.
Unit of Panasonic Corporation of North America
www.panasonic.com/broadcast

Government Sales: phone: 201-348- 7587

Headquarters: 3 Panasonic Way, 4E-7, Secaucus, NJ 07094; phone: 201-348 -5300

Eastern Zone: 3 Panasonic Way, 4E-7, Secaucus, NJ 07094; phone: 201-348 -7196

Western Zone: 3330 Cahuenga Blvd. West, Los Angeles, CA 90068; phone: 323-436-3608

AK-JACHC1500-2



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