

Panasonic
ideas for life

High Definition Video Camera
AG-HSC1U

Professional HD picture quality
in the palm of your hand!
The SD Memory Card has changed everything.



Actual size ▲

AVCHD

LEICA
DICOMAR **SD HC**



The world's smallest,¹ lightest professional HD camcorder. SD/SDHC Memory Card recording with HD picture quality.

To meet the increasing needs of HD content production, Panasonic developed a new AVCHD camcorder for low-cost HD acquisition.

Thanks to professional refinements, which consumer camcorders don't include, color reproduction is the same as that provided by Panasonic's series of professional models. What's more, the new AVCHD standard means you can enjoy extended HD recording onto an SD/SDHC Memory Card. With its compact body, colored metallic gray to reduce reflection, this superb camcorder presents a new world of possibilities for people who are serious about image production.

*1 As of January 17, 2007. Applies to 3CCD HD camcorder.

AVCHD

A new standard for recording HD signals onto memory cards/ DVD/Hard Disk Drive. Uses the H.264 system which provides over Twice the compression efficiency of MPEG-2 and MPEG-4.

* AVCHD and the AVCHD logo are trademarks of Matsushita Electric Industrial Co., Ltd. and Sony Corporation.



Professional Tuning for Superb Color Reproduction

Color reproduction with features such as color matrix, chroma gain and gamma curve, for the same professional tuning as Panasonic's professional models. The result is image quality that professionals demand.

Ideal Camcorder Shape with Mechanism-less Drive

Using an SD/SDHC Memory Card as the recording medium enables a mechanism-less construction^{*2} without the need for a tape or disc drive system. This assures excellent reliability, fast operation and enables a compact, lightweight design.

^{*2} The use of an SDHC Memory Card/SD Memory Card eliminates the need for a drive mechanism to move a tape or disc.



◀ About 90 minutes of HD recording with the supplied 4GB SDHC Memory Card!

^{*} In the HE (long play/record) mode.

The World's Smallest and Lightest^{*1} 3CCD HD Camcorder

By using a compact, lightweight medium, Panasonic succeeded in dramatically reducing body size and weight. This extra mobility enables even more shooting versatility.



No Missed Shooting Opportunities with 1.7 Sec. Ultra-Fast Quick Start

There's no need for a motor to start when you switch the power on, so you're ready to shoot those not-to-be-missed scenes in just 1.7 seconds with Quick Start^{*3}. And because recording is automatically performed to empty areas of the card, there's no need to search for a blank part as when using a videotape camcorder.

^{*3} When the Quick Start mode is selected, the time required to enable shooting after opening the LCD.

Tough Shock- and Dust-Proof Body

Thanks to the mechanism-less construction^{*2}, which doesn't require drive circuitry to move a tape or disc, the design is exceptionally well sealed to keep dirt and dust out as well as protect against shocks. It also offers strong protection from condensation forming due to rapid temperature changes, an ideal feature when shooting outdoors.



Supplied SD Media Storage

[40GB Hard Disk Drive & SD/SDHC Memory Card compatible]



Digital HD Video Camera
AG-HSC1U

High Image Quality Technology Developed for HD Shooting

New Design for HD Image Quality. Leica Dicomar Lens

Leica Dicomar Lens for Beautiful Wide-Angle and Zoom Images

Featuring 13 individual lens elements arranged in 10 groups, the Dicomar lens boasts the ideal design for HD shooting applications. The lens elements are made of low dispersion glass to assure low chromatic aberration and high resolution. And 21 multi-coated lens surfaces minimize flare and ghosting. The result is sharp, crisp images with delicate nuances and exceptional shading.

Wide-Angle 38.5mm Lens

The glass-molded ultra high refractive index aspherical lens enables wide-angle shots with a wide end of 38.5mm (35mm conversion) with a compact unit.

12x Optical Zoom Lens

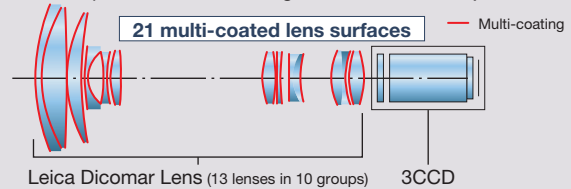
With the optical system, the lens itself zooms in on the subject, so even with 12x zoom you can enjoy shooting with superb HD image quality.

- Leica is a registered trademark of Leica Microsystems IR GmbH.
- Dicomar is a registered trademark of Leica Camera AG.
- Leica Dicomar products are manufactured using Leica-Certified measuring instruments and quality assurance systems based on rigorous quality standards approved by Leica Camera AG.

Optical Image Stabilizer Suppresses Hand-Shake

With this Optical Image Stabilizer (O.I.S.), the lens itself moves to correct hand-shake. The result is highly precise correction for virtually no image quality degradation.

EA Lens (Glass-Molded Ultra High Refractive Index Aspherical Lens)



Because the optical system uses a gyrosensor to detect hand-shake and the lens itself moves to correct it, correction is extremely precise to assure virtually no image quality degradation. This lets you enjoy beautiful HD quality images even in shooting situations where hand-shake can easily occur, such as with zoom shots and when shooting indoor or night scenes when there is little light.

- * Due to particularly large vibrations caused by hand-shake or other conditions, blurring may not be eliminated.
- * Depending on shooting conditions, no large difference may appear.



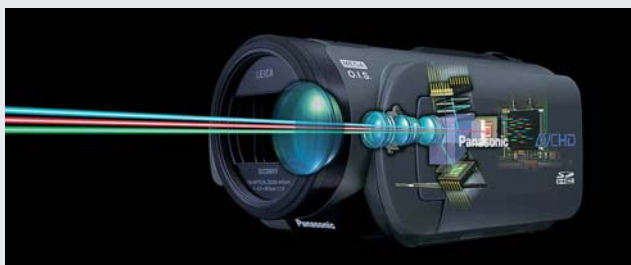
High Sensitivity and Resolution with the 3CCD HD System

1/4-inch Progressive CCD for Faithful Color Reproduction

To assure high sensitivity, Panasonic developed a 1/4-inch progressive CCD. The result is high color resolution enabling recording of detailed images with natural hues.

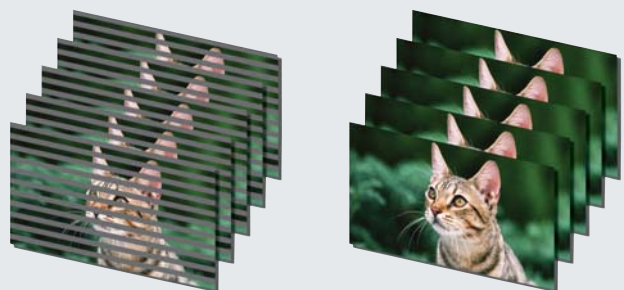
Enlarged photosensor area for noiseless dark scenes

Enlarging the area of each CCD pixel enables high sensitivity shots in light as low as 6 lux. Which means you can even shoot dark scenes with minimal noise.



High-Precision Progressive Scan

In the AG-HSC1U's camera section, the progressive CCD creates native progressive images with outstanding vertical resolution. Progressive interlace conversion is then used to provide image quality higher than possible with images produced using conventional electronic interpolation of interlaced signals. There's also progressive 3D noise reduction. Dramatically reduced noise and after images.



Interlaced scan

Progressive scan

Low Bit Rate & High Resolution Recording AVCHD Specifications **AVCHD**

A World First* - HD Recording onto an SD/SDHC Memory Card

The unit features a new AVCHD (MPEG-4, AVC/H.264) standard system developed for recording HD signals onto memory cards/DVD/Hard Disk Drive. Providing compression efficiency surpassing that of MPEG2, for the first time in the world this system enables 1080i high definition recording with AVCHD onto an SD/SDHC Memory Card.

* As of January 17, 2007.

Memory cards that can be used

Card capacity	High speed SDHC	High speed	Pro high speed
SDHC Memory Card	4GB RP-SDM04G RP-SDR04G		
SD Memory Card	2GB	RP-SDR02G	RP-SDK02G
	1GB	RP-SDR01G	RP-SDK01G
	512MB	RP-SDR512	RP-SDK512
	256MB	RP-SDH256	

The Panasonic memory cards listed above are recommended for Video shooting.
(As of March 2007)

About 90 minutes* of HD Recording Possible

The newly developed LSI uses High Profile to achieve high compression performance while high resolution recording is provided with a low bit rate. You can enjoy about 90 minutes of HD (1080i) recording onto the supplied 4GB SDHC Memory Card. And Variable Bit Rate (VBR) compatibility means dramatically reduced image degradation during rapidly changing scenes.



* In the HE (long play/record) mode.

Motion picture recording time (approx.)

Image quality	Capacity	SD Memory Card				
	SDHC Memory Card	4GB	2GB	1GB	512MB	256MB
HF (13Mbps)	40min.	20min.	10min.	5min.	2min.	
HN (9Mbps)	60min.	30min.	15min.	7min.	3min.	
HE (6Mbps)	1h 30min.	45min.	22min.	10min.	5min.	



Thorough Approach to Sound, Still Images and Easy Operation

Five-Mic Unit for Recording with Exceptional Presence

The five built-in microphones enable 5.1 channel sound recording for incredible presence. Better still, when zooming in on a subject, the five microphone units function as an ultra directional zoom microphone. So there's more atmosphere when taking wide angle shots, and when taking zoom shots you can zoom in on the sound in front of your subject.



The result is sound reproduction with a level of directionality that cannot be expressed by conventional 2-mic systems.

Fast Scene Search with Thumbnail View

Image data is recorded as a file for each scene. Thumbnail images and file information are automatically attached to each file to enable smooth, easy confirmation and deletion of files displayed on the LCD monitor.



Other valuable features

- **2.1 Mega-Pixel Still Image Recording** enables still image shots during video shooting.
- **Auto Ground-Directional Standby (AGS)** automatically pauses recording if the camera is pointed down.
- **TV Link** capability for easy playback or recorded images on a large-screen TV, like a widescreen Panasonic plasma model.
- **Telemacro** lets you shoot macro close-ups while maintaining a distance of 60cm from your subject for authentic extreme close-up shots.
- **High speed shutter** adjustable to as fast as 1/8,000 sec. when shooting moving and still images.
- **Auto Lens Cover** automatically opens the lens cover when the power is switched on. Switch off the power and the cover closes to protect the lens.
- In the **Beautiful Skin mode**, areas of skin color are detected and soft focus is applied to make small blemishes and wrinkles less noticeable.
- **The body is satin-finished metallic gray** to prevent reflections.

Extra Mobility Enables Video Editing

Shoot, transfer to a PC and output - ready to use and re-use

High-Speed Copying to Hard Disk Drive Supplied SD Media Storage

SD Media Storage is provided to eliminate the problem of insufficient data storage capacity when shooting. The touch of a button is all it takes to complete high-speed transfer* of data from an SD/SDHC Memory Card to the Hard Disk Drive. The Hard Disk Drive has a capacity of 40GB, the same capacity as 10 4GB SDHC Memory Cards. Battery operation is also possible so you'll have no problems in locations where there's no power supply.

• With this unit alone you cannot copy data from the Hard Disk Drive to an SD/SDHC Memory Card. A PC and USB connection are required.
* Maximum speed about 8x normal. Speed differs depending on the SD/SDHC Memory Card used.



Accessory
SD Media Storage

Data Transfer to a PC and DVD Also Possible Supplied PC Software

The simple, intuitive PC software "HD Writer Ver.1.0E for SD1" is included. It lets you perform operations such as importing moving images or transferring them to an SD/SDHC Memory Card or DVD, creating a top menu, and erasing and joining scenes.



[Compatible OS] Microsoft® Windows® XP Home Edition SP2, Microsoft® Windows® XP Professional SP2, Microsoft® Windows® 2000 Professional SP4 preinstalled Japanese versions (not compatible with Macintosh).

[CPU] Intel® Pentium® 111 1.0GHz or higher (when using the Preview function (30fps), an Intel® Pentium® 4 HyperThread 3.0GHz or higher) CPUs (including compatible CPUs)

■ SD Memory Card-to-DVD Copying Without Cables



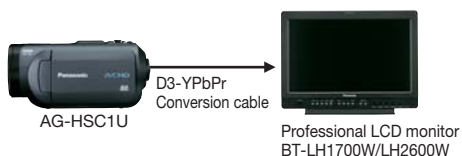
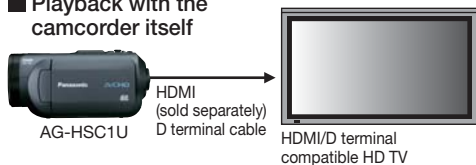
* SD/SDHC Memory Card compatible PC.

Do not load discs created using the supplied HD Writer Ver. 1.0E for SD1 software in components that do not comply with AVCHD specifications as it may not be possible to eject the disc. Playback is also not possible with components that do not comply with AVCHD specifications.

Playback Environment

1. HD playback on an HD TV/monitor

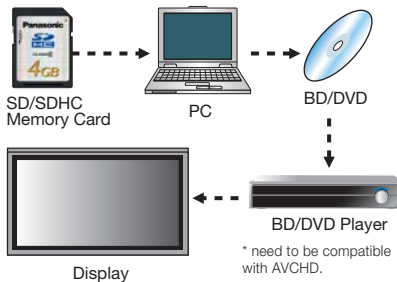
■ Playback with the camcorder itself



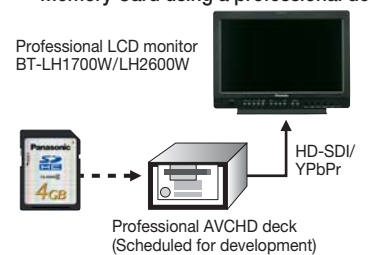
* Separate D terminal adapter and D terminal component cable required.

2. Playback on compatible components

■ Playback on BD player

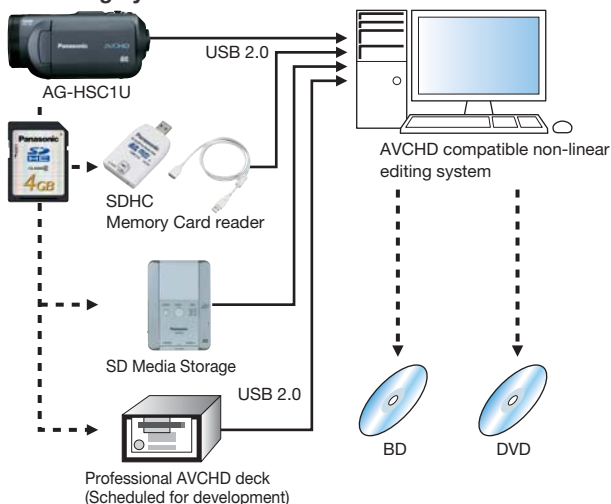


■ Direct playback from an SD/SDHC Memory Card using a professional deck.

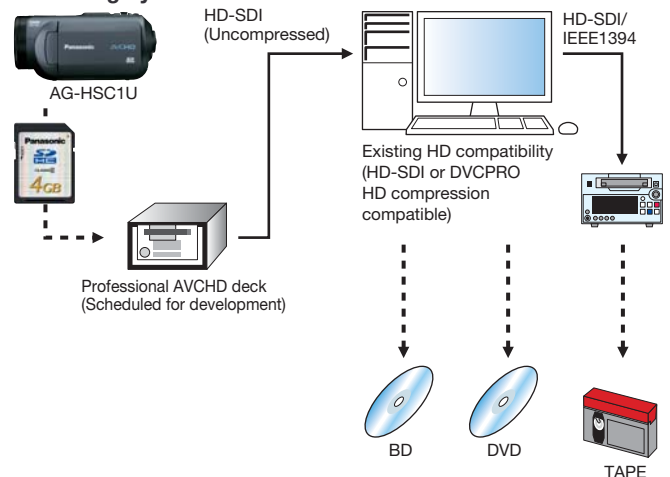


Editing Environment

1. Editing with an AVCHD compatible non-linear editing system



2. Editing with an existing HD compatible non-linear editing system



Front view



Side view



USB Terminal

HDMI Terminal

Indication of Remaining Battery Power

The number of minutes of remaining battery power is indicated in the LCD monitor so you can shoot without worrying about the power suddenly running out. However, with battery packs other than a genuine Panasonic battery pack, remaining battery time is not indicated in 1 minute units.

Improved Color Reproduction!

3-inch, 250,000 pixel display
Features a high-definition LCD monitor



One-Touch Navigation

Icons of often-used menus for each mode are displayed in the LCD monitor. These let you perform operations quickly and easily, without taking your eye off the display.

Mode Dial

This handy feature lets you switch modes with your fingertip without changing your grip on the camcorder.

Cross Key Controls

Easy-to-press cross keys enable sure, comfortable single-handed control even while shooting.

Still Image Shooting During Video Shooting

The Photo Shot button lets you simultaneously shoot still images while shooting moving images, so you won't miss the perfect shot when the opportunity arises.



SD Card Slot in
AV OUT Terminal
Component Video Output Terminal
Microphone Terminal

Side view

Digital HD video camera options



Shoe adaptor
VW-SK12
● Connection of multiple accessories possible



Video DC light
VW-LDC102
● Connection via a shoe adaptor



Battery pack*
VW-VBG130
● 1,320mAh (supplied with the AG-HSC1U)



AC adaptor*
VW-AD21
(supplied with the AG-HSC1U)



Wide conversion lens
VW-W4307H



Tele-conversion lens
VW-T4314H

* Cannot be used with the supplied SD Media Storage

Specifications

AG-HSC1U	Image Sensor	1/4" CCD x 3 [560 k x 3 pixels, Total / 520 k x 3 [16:9] (Motion Picture / Still Picture) Effective]	
	Lens	12x Variable Speed Zoom F 1.8 (wide) / 2.8 (tele) 35 mm Film Camera Equivalent 38.5 - 462 mm [16:9] (Motion Picture / Still Picture)	
	Filter Diameter	43mm	
	Zoom	Optical: 12x / Digital: 30x / Super Digital: 120x	
	Monitor	3.0" Wide LCD (250 k pixels)	
	Microphone	5.1-ch Surround Sound, Zoom Mic	
	Speaker	φ 20 mm, Dynamic Round Speaker	
	White Balance	Auto / White Set / Indoor / Outdoor (with IR Sensor)	
	Standard Illumination	1,400 lux	
	Minimum Illumination	Under 6 lux (Low Light Mode, 1/60), Color Night View Mode: Under 2 lux	
	Interfaces	Video OUT	1.0Vp-p 75Ω (AV Multi)
		Component Video Output	Y: 1.0Vp-p 75Ω Pb: 0.7Vp-p 75Ω Pr: 0.7Vp-p 75Ω
		HDMI Output	HDMI Ver.1.2a 1125i (1080i) 625p (576p)
Audio Out		316mv 600Ω 2ch	
Mic. in		Stereo Mini Jack (Plug in Power), Sensitivity: -70dBv / -50dB (0dB=1V / Pa, 1kHz), 5,600Ω	
USB Terminal		2.0 High Speed (mini B) Card Reader (without Copyright Protection Function), PictBridge Compatible	
Moving Pictures		Recording Media	SD Memory Card (256MB - 2GB), SDHC Memory Card (4GB)
	Recording Format	AVCHD (1440 x 1080 / 50 i)	
Visual Format	Compression Method	MPEG-4 AVC / H.264	
	Audio Recording Format	Dolby Digital (5.1ch, 2ch)	
Still Pictures	Recording Media	SD Memory Card (256MB - 2GB), SDHC Memory Card (4GB)	
	Recording Format	JPEG (DCF / Exif2.2 Standard), DPOF Corresponding	
General	Recording Image Size	1,920 x 1,080 (Wide)	
	Dimensions (W x H x D)	74 x 69 x 142 mm (Including Protrusions)	
	Weight	430 g (without Battery) 490 g (with Battery Pack, SDHC Memory Card)	
	Supply Voltage	DC 9.3 V / 7.2 V	
	Power Consumption	8.0W	
	Operating Temperature	0°C to + 40°C (32°F to + 104°F)	
	Operating Humidity	10% to 80% (No Condensation)	
	Standard Accessories	SDHC Memory Card (4GB), AC Adaptor, AC Cable, DC Cable, Battery Pack (1,320 mAh), Component Video Cable, AV Cable, IR Remote, PC Cable (USB), CD-ROM (HD Writer Ver. 1.0E for SD1), SD Media Storage	

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Factories of Systems Business Group have received ISO14001:2004-the Environmental Management System certification.

