

## 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) 525p (480p)
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 Writer (with Copyright Protection Function), PictBridge Compatible	
Moving Pictures	Recording Media	SD Memory Card (256MB - 2GB), SDHC Memory Card (4GB)	
	Recording Format	AVCHD (1440 x 1080 / 60 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), OPOF Corresponding	
	Recording Image Size	1,920 x 1,080 (Wide)	
General	Dimensions (W x H x D)	2.9 x 2.7 x 5.6 inch (Including Protrusions)	
	Weight	Approx. 0.94 lbs (430 g) (without Battery) Approx. 1 lbs (490 g) (with Battery Pack, SDHC Memory Card)	
	Supply Voltage	DC 9.3 V / 7.2 V	
	Power Consumption	8.0W	
	Operating Temperature	32°F to + 104°F (0°C to + 40°C)	
	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	

# Panasonic®

**PANASONIC BROADCAST & TELEVISION SYSTEMS COMPANY**  
UNIT OF PANASONIC CORPORATION OF NORTH AMERICA  
[www.panasonic.com/broadcast](http://www.panasonic.com/broadcast)

**Executive Office:** One Panasonic Way, 4E-7, Secaucus, NJ 07094  
(201) 348-5300

**EASTERN ZONE:** One Panasonic Way 4E-7, Secaucus, NJ 07094  
(including Southeast) (201) 348-7196

**WESTERN ZONE:** 3330 Cahuenga Blvd W., Los Angeles, CA 90068  
(323) 436-3608

**SOUTHERN ZONE:** (201)392-6151  
**Government Sales:** (201)348-7587

**Panasonic Canada Inc.**  
5770 Ambler Drive, Mississauga, Ontario L4W 2T3 (905) 624-5010  
[www.panasonic.ca](http://www.panasonic.ca) e-mail: [broadcast@panasonic.ca](mailto:broadcast@panasonic.ca)

**Panasonic Puerto Rico, Inc.**  
San Gabriel Industrial Park, 65th Infantry Ave., Km. 9.5, Carolina,  
Puerto Rico 00630 (787) 750-4300

**Matsushita Electric Industrial Co., Ltd.**  
Systems Business Group  
2-15 Matsuba-cho, Kadoma, Osaka, 571-8503 Japan  
Tel. 81-6-6905-4650 Fax. 81-6-6908-5969  
<https://www.pavc.panasonic.co.jp/pro-av/>

**Panasonic Systems Sales Taiwan Co., Ltd.**  
5F, 2 Sec. 5 Hsin I Road Taipei, Taiwan  
Tel. 886-2-2725-9100 Fax. 886-2-2725-9291

**Panasonic Korea Ltd.**  
Seohyun B/D, 1718-9, Seocho-Dong, Seocho-Gu,  
Seoul, Korea  
Tel. 82-2-2106-6641 FAX. 82-2-533-8766

**Broadcast and Communication Company of Asia, Inc.**  
R-1902A Teklite Tower II Exchange Road Ortigas Center Posig  
City, Philippines  
Tel. 63-2-633-6162 Fax. 63-2-631-1861

**Panasonic de Mexico, S.A. de C.V.**  
Tel. 52-55-5488-1000 Fax. 52-55-5575-6763

**Panasonic Latin America S.A.**  
(Caribe, Centro America, Venezuela, Colombia, Ecuador,  
Bolivia, Uruguay, Paraguay, Chile)  
Tel. 507-229-2955 Fax. 507-229-2536

**Panasonic del Peru S.A.**  
Tel. 51-1-614-0000 Fax. 51-1-452-9415  
**Panasonic do Brasil Ltda**  
Tel. 55-11-3889-4035 Fax. 55-11-3889-4004



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



30K703SPM-1 Printed in Japan

# 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



Official Worldwide  
Olympic Partner

# The world's smallest,<sup>1</sup> 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.

<sup>1</sup> As of January 17, 2007. Applies to 3CCD HD camcorder.

A new standard for recording HD signals onto memory cards/DVD/Hard Disk Drive. Uses the H.264 system which provides over

## 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.

### Ideal Camcorder Shape with Mechanism-less Drive

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

<sup>2</sup> 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<sup>1</sup> 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<sup>3</sup>. 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.

<sup>3</sup> 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<sup>2</sup>, 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.



### 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.



**Supplied SD Media Storage**  
[ 40GB Hard Disk Drive (HDD) & 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

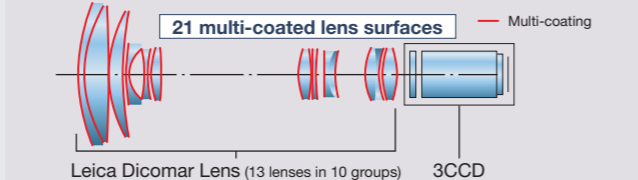
With the optical system, the lens itself zooms in on the subject, so even with 12x zoom you can enjoy shooting with superb HD image quality.

- 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.

## Low Bit Rate & High Resolution Recording AVCHD Specifications



### 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.

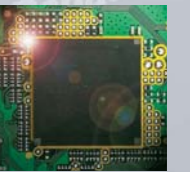
### Memory cards that can be used

Card capacity	High speed SDHC	High speed	Pro high speed	
SDHC Memory Card	4GB	RP-SDM04G RP-SDR04G		
	2GB		RP-SDR02G	RP-SDK02G
SD Memory Card	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	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.



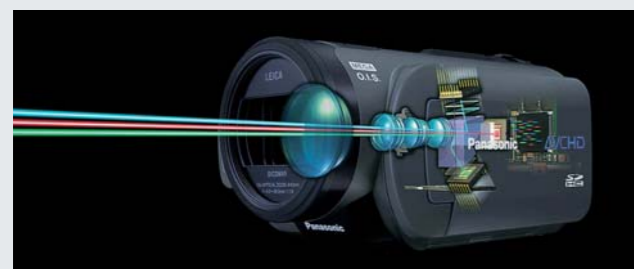
## High Sensitivity and Resolution with the 3CCD HD System

### 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.

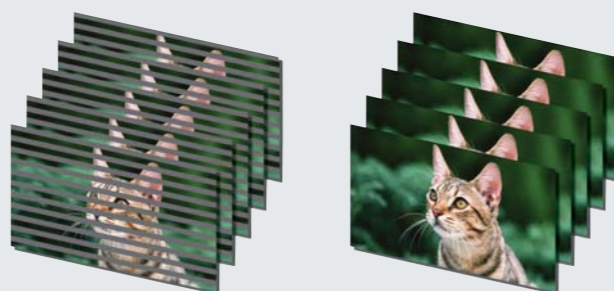
### Enlarged photosensor area for noiseless dark scenes

Enlarging the area of each CCD pixel enables high sensitivity shots in light as low 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.



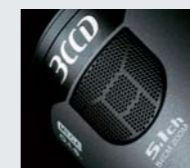
Interlaced scan

Progressive scan

## Thorough Approach to Sound, Still Images and Easy Operation

### Five-Mic Unit for Recording with Exceptional Presence

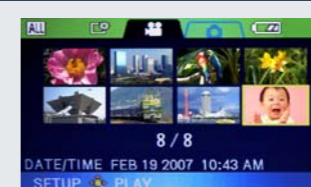
The five built-in microphones enable 5.1 channel sound recording for incredible presence. Better still, when zooming in on a subject, the five microphone units function as an ultra directional zoom microphone. So there's more atmosphere when taking wide angle shots, and when taking zoom shots you can 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 2ft. 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.



## 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).

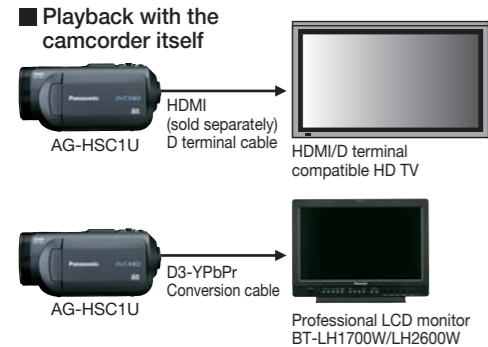
[CPU] Intel® Pentium® 111 1.0GHz or higher (when using the Preview function (30fps), an Intel® Pentium® 4 HyperThread 3.0GHz or higher) CPUs (including compatible CPUs)

### SD Memory Card-to-DVD Copying Without Cables

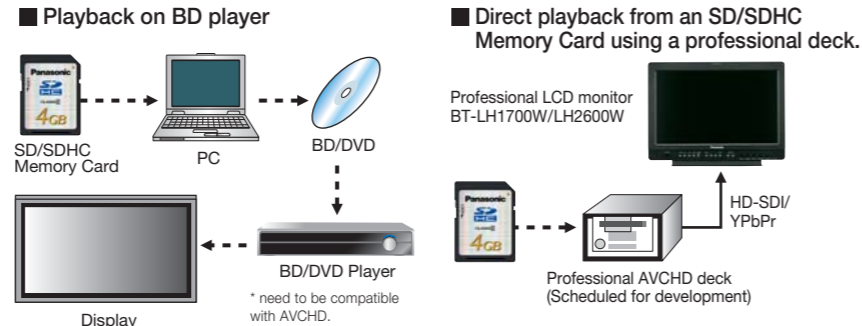


## Playback Environment

### 1. HD playback on an HD TV/monitor



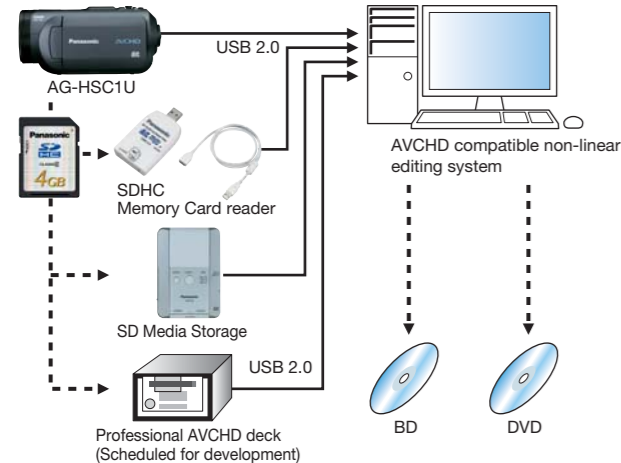
### 2. Playback on compatible components



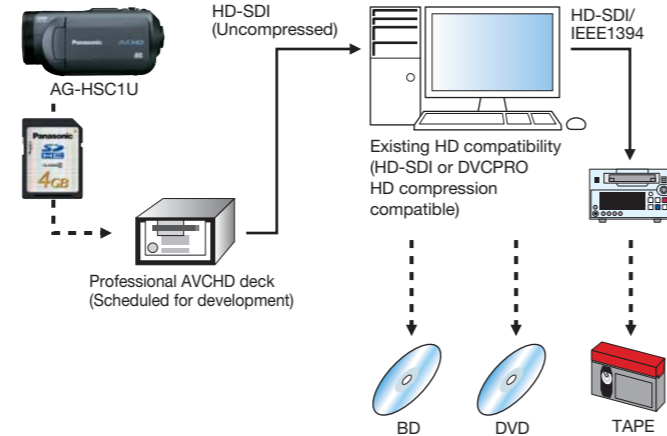
\* Separate D terminal adapter and D terminal component cable required.

## Editing Environment

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



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



## Profile



Improved Color Reproduction!  
3-inch, 250,000 pixel display  
Features a high-definition LCD monitor



## Digital HD video camera options



\* Cannot be used with the supplied SD Media Storage