Memory Card Portable-Recorder
AG-HMR10
Camera Head for AG-HMR10 (optional)
POVCAM
AG-HCK10G

A Handheld HD Recorder with HD-SDI Input / Output
Featuring Versatile Operation and Full-HD Images

* The camera cable is optional.

Camera Head (optional)
AG-HCK10G

* Memory card is not included

Memory Card Portable-Recorder
AG-HMR10

AVCCAM 3-Year Warranty Repair Program*
* AG-HMR10 users qualify for a 3-year warranty on repairs. Visit the website for details:
(For US Customer: www.panasonic.com/broadcast)
(For Outside US: http://panasonic.biz/sav/pass_e)
The optional AG-HCK10G camera head is not included.
HD-SDI Input and Output, High Quality Image Acquisition for Professional use and SD Memory Card Recording

Amazing Advanced Functions in this Small Body

AG-HMR10 Features

- Records HD-SDI input signals with high image quality. PH mode allows bit rates of up to 24 Mbps.
- SD memory card recording provides excellent reliability and cost-performance.
- The palm-size body weighs only about 691 g (1.52 lbs)*1.
- Enables versatile operation when combined with the AG-HCK10G Camera Head (optional)*2.

*1: Including bundled battery. *2: Either the 3 m (9.84 ft) or 20 m (65.62 ft) camera head option cable is required.
SD Memory Card Recorder: Lower Operating Costs, Environmentally Friendly

**SD Memory Card Recording Reduces Total Cost of Ownership**

(1) Faster, easier editing because digitization is not necessary
(2) Lower media costs because memory cards are reusable
(3) Lower maintenance costs because there is no moving mechanism

By reducing editing, media and maintenance costs, AVCCAM can help improve your bottom line. Users can also take advantage of a special 3-year free-repair service program that Panasonic offers for AVCCAM equipment.

* The optional AG-HCK10G camera head is not included.

**The SD Memory Card Helps Preserve the Environment with Its Reusability and Low Power Consumption**

The SD Memory Card media for the AVCCAM camera recorder is totally free from abrasion and dropout. There is no drive mechanism required, as there is for tape and disc-based recorders, so power consumption is low and size and weight are reduced. Malfunctions are less likely to occur, and there is no need to replace heads or transport components. This translates into lower costs and easier maintenance, greater energy savings, and less waste when the unit is eventually disposed of. All of these features help to conserve the environment.

* The image is simulated.
AVCHD Format Recording: Superior Quality, Efficiency and Reliability
A Wealth of Recording Functions to Meet Professional Needs

The AG-HMR10 features the image-enhancing PH mode that Panasonic developed exclusively for AVCCAM camera recorders. It delivers a maximum AVCHD bit rate of 24 Mbps (average: 21 Mbps). Designed for professional image production, this mode handles full-pixel HD 1920 x 1080 and 1280 x 720 HD pixels, and lets you record 1080/30p, 1080/25p, and 1080/24p progressive images in addition to 1080/60i and 1080/50i when connected to the AG-HCK10G (optional).

High-end AVCHD Image Quality
PH Mode for High Bit Rate Recording

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AVCHD Format for High-quality, Efficient HD Recording

This format complies with the latest H.264 motion image compression standard, and employs the High Profile standard to improve compression efficiency. Featuring twice the compression efficiency of HDV (MPEG-2), the AG-HMR10 achieves extended HD recording time.

- MPEG-4 AVC/H.264 Technologies
  - Intra-frame Prediction
  - Variable Block Size Motion Compensation
  - Loop Filter Prevents the Propagation of Compression Distortion
  - New Entropy Encoding ‘CABAC’

Comparison of HD Recording Formats

<table>
<thead>
<tr>
<th>Pixel (H x V)</th>
<th>HDV</th>
<th>AVCHD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1440 x 1080</td>
<td>MPEG-2</td>
<td>AVCHD</td>
</tr>
<tr>
<td>1280 x 720</td>
<td>Approx. 180 minutes</td>
<td>Approx. 240 minutes</td>
</tr>
</tbody>
</table>

Ease, Efficiency, Reliability
Large-capacity SDHC Memory Card

Unlike videotape, there’s no need for cueing with the SDHC Memory Card because recording automatically begins in a blank section of memory. Nor do you have to worry about accidentally recording over important footage. You can delete unwanted clips instantly right on the spot to preserve memory capacity. Editing after shooting is smooth and easy, with no need for digitizing. The solid-state memory design does away with the moving mechanism to provide excellent resistance to impacts, vibration and temperature changes, and eliminates concerns about dropouts and clogged heads.

- Using the high compression efficiency of the AVCHD format, up to 720 minutes*1 of HD data can be recorded onto a single SDHC Memory Card.
- Combined with a maximum data transfer speed of 22 MB/s,*2 this makes data transfers to computers easy and effortless.
- SDHC Memory Cards are inexpensive and can be easily purchased on location when needed.

*1: In HE (extended time) mode using a 32 GB SDHC Memory Card.
*2: Data transfer speed varies depending on the usage of SD devices. The speed given here is the maximum speed according to Panasonic specifications.

AVCHD Format Recording: Superior Quality, Efficiency and Reliability
A Wealth of Recording Functions to Meet Professional Needs

Memory Card
Portable-Recorder
AG-HMR10

* The image is simulated.

AVCHD Format Recording: Superior Quality, Efficiency and Reliability
A Wealth of Recording Functions to Meet Professional Needs

Memory Card
Portable-Recorder
AG-HMR10

* HD-SDI Camera connects to AG-HMR10.

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HD multi-format recording

<table>
<thead>
<tr>
<th>Recording Format</th>
<th>When set to 59.94 Hz</th>
<th>When set to 50 Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td>1080</td>
<td>1080/29.97p<em>1, 1080/25p</em>1</td>
<td></td>
</tr>
<tr>
<td>(only PH mode)</td>
<td>(Native*2)</td>
<td>1080/50p</td>
</tr>
<tr>
<td>720</td>
<td>720/59.94p, 720/29.97p<em>1, 720/23.98p</em>1 (Native*2)</td>
<td>720/25p*1</td>
</tr>
</tbody>
</table>

* When the system frequency has been changed, turn the unit’s power off and then back on so that the setting takes effect.
*1: Selectable only when combined with the AG-HCK10G.
*2: In the Native mode, AG-HMR10 records only active frames.

Records for 180 minutes (approx.) in the highest-quality (PH) mode

<table>
<thead>
<tr>
<th>Recording Mode</th>
<th>Image Size (H x V)</th>
<th>Bit Rate</th>
<th>Max. Recording Time with a 32 GB SDHC Memory Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH Mode</td>
<td>1920 x 1080</td>
<td>Approx. 21 Mbps (Average), Max. 24 Mbps</td>
<td>Approx. 180 minutes</td>
</tr>
<tr>
<td>HA Mode</td>
<td>1920 x 1080</td>
<td>Approx. 17 Mbps (Average)</td>
<td>Approx. 240 minutes</td>
</tr>
<tr>
<td>HG Mode</td>
<td>1920 x 1080</td>
<td>Approx. 13 Mbps (Average)</td>
<td>Approx. 320 minutes</td>
</tr>
<tr>
<td>HE Mode</td>
<td>1440 x 1080</td>
<td>Approx. 6 Mbps (Average)</td>
<td>Approx. 720 minutes</td>
</tr>
</tbody>
</table>

* A Class 4 or higher SDHC or SD Memory Card is required for PH and HA recording. Use a Class 2 or higher SDHC or SD Memory Card for other modes. (Panasonic SDHC or SD Memory Cards are recommended.)
More Efficient than Tape
Versatile Solid-state Recording Functions

- **Shot mark**
  To simplify shot selection, you can add a mark to the thumbnail images of each clip. You can then display and play only the clips that have shot marks.

- **Pre-REC**
  This helps to ensure you always get the shot you want, by letting you continuously store, and subsequently record, images and sounds for 3 seconds before the REC button is pressed in standby mode.
  * Can be used only when combined with the AG-HCK10G.

- **REC CHECK**
  Plays back the last 2 seconds of the most recently recorded clip for quick confirmation.
  * Can be used only when combined with the AG-HCK10G.

- **Last clip delete**
  Only the most recently recorded clip is deleted with this one-touch function. It can be assigned as a User button function if desired.

- **Meta-data recording**
  The date, camera operator, location, title and other information can be added to the image data.

- **LCD REVERSE**
  The image displayed on the LCD monitor can be reversed vertically and horizontally to check the angle and recorded image.
  * Only the image display is reversed. The recorded image remains in its original orientation. It can be assigned as the User button if desired.

- **INDEX**
  Index flags can be added to any desired points in a clip during recording or playback. Up to 100 index flags can be added to each clip.

Adjust the Image Quality While Watching the Signal Level
Waveform Monitor Display

A horizontal analysis of the input signal’s brightness level can be displayed on the monitor. This lets you adjust the standard black and white levels while checking the Waveform Monitor (WFM), making it easy to get highly accurate adjustments.

#### Easy-to-see LCD

- **TC (time-code)**
- **Remaining Memory**
- **Waveform Monitor**

- **Zoom Number**
  Displayed from Z00 to Z99. Handy for remembering the angle of view.

- **Remaining Battery**

- **Simplified Display in Vector Scope**
  The display can be switched from waveform monitor (WFM) to vector scope (VECTOR).

- **Image with Vector scope display**

Fast Scene Searches
8.9 cm (3.5 inch) LCD Monitor 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 fast, nonlinear access confirmation and deletion of files displayed on the LCD monitor.

Meets a Variety of Needs
Convenient Playback Functions

- **Resume Playback**
  When the Stop key is pressed during playback, the stop position is stored in memory. Simply press the Play key to start playing again from the stop position. This feature is especially appreciated when reviewing long clips.
  * Turning off the power resets the memory. This function is disabled in the factory default setting.

- **Repeat Playback**
  This function provides repeat clip playback. It is convenient for use in presentations and demonstrations because playback is seamless, and there’s no need for rewinding. There’s also no wear or tear on the recording media or degradation in the image quality.
  * Repeat playback of multiple clips is possible only for clips of the same format.

- **Clip Operation**
  The AG-HMR10 allows fast forward, fast reverse, clip forward, clip reverse, and frame by frame playback operation.

On-site Recording and Monitoring
Convenient Recording Functions

- **Time stamp**
  You can insert time and date information into the video signal. This could be convenient, for example, when observing animals over an extended period, in certain academic uses, in surveillance, court reporting, legal depositions or law enforcement applications.

- **TC/UB recording**
  Provides a built-in SMPTE time-code generator.
The AG-HMR10 lets you assign any of the following 11 functions to the User button for instant access.

<table>
<thead>
<tr>
<th>Function</th>
<th>With HD-SDI input</th>
<th>With AG-HCK10G input</th>
</tr>
</thead>
<tbody>
<tr>
<td>INH</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>REC CHECK</td>
<td>—</td>
<td>○</td>
</tr>
<tr>
<td>SPOTLIGHT</td>
<td>—</td>
<td>○</td>
</tr>
<tr>
<td>BACKLIGHT</td>
<td>—</td>
<td>○</td>
</tr>
<tr>
<td>ATW LOCK</td>
<td>—</td>
<td>○</td>
</tr>
<tr>
<td>LCD DTL</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>LCD REVERSE</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>SHOT MARK*1</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>LAST CLIP</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>COUNTER*2</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

*1: When the User button that has been assigned to SHOT MARK, it can be used during thumbnail display.
*2: When the User button that has been assigned to COUNTER, it can be used during clip playback.

Other Professional Features

- **Color bar**: Provides a useful test pattern for setting up your monitor and 1 kHz, audio test tone.*
  * When SYSTEM FREQ is set to 50 Hz, a 997 Hz test tone is output.
- **Camera remote**: It features a remote jack to control the zoom and recording start/stop. Allows use of any camera remote controller that is compatible with the AG-DVX100/HVX200/HMC150/HMC40 Series.
- **KEY LOCK**: Temporarily disables the operating buttons on the camera to prevent operating mistakes.
- **LCD DTL**: Emphasizes the contours of images displayed on the LCD to aid in focusing.
  * Emphasizing the contours of the displayed images does not affect the recorded images.

Designed with Operating Ease in Mind

Excellent Mobility and Easy Operation

In addition to being lightweight and compact the shape of this handheld recorder provides an easy, fatigue-free grip. Operating ease has also been enhanced by a universal key layout that enables both right and left handed operation. Two multi-purpose threaded sockets are provided on each of the left and right sides. They can be used to mount the unit for a variety of applications.

Multi-purpose threaded sockets
M3 (2 mm diameter) screws with an 8 mm length can be used.

PC Connection via USB 2.0 Terminal (Type mini B)

This lets a Windows PC/Mac installed with the provided AVCCAM Viewer software to ingest, copy, and write HD video files, as well as transfer them to AVCHD-compatible nonlinear editing software for HD image production.

* Only the Squeeze mode can be used with HDMI output.
High-Quality, Full-HD Video Input and Output
A Portable Recorder for Various Situations and Applications

**Tapeless Recording from Existing Camera Recorders**

The HD-SDI input terminal on the AG-HMR10 allows it to record full-HD video signals sent from a wide range of devices, including tape-based camera recorders. An Auto REC function also automatically starts and stops recording in sync with the camera operation, to allow easy backup recording without operating the AG-HMR10.

* To use linked and automatic recording, the function must be supported by the connected camera recorder.

**Handy for Recording Data onto SDHC/SD Memory Cards**

Connection is also possible to existing HD box cameras or weather cameras via HD-SDI. Image can be recorded to a large-capacity SDHC/SD Memory Card, which enables up to approx. 12 hours of HD recording*.

* In HE (extended time) mode using a 32 GB SDHC Memory Card.

**Easy Output of High-Quality, Full-HD Images**

HD-SDI output and an HDMI terminal make it possible to output full-HD images for large displays. Auto Repeat playback comes in handy for displays at events and digital signage.

* An optional input board may be necessary for some models.
The AVCHD Format Enables Smooth Production and Easy Internet Distribution. Tapeless Design Means Lower Total Costs

Unlike tape, AVCHD files require no digitizing*1 and can be directly and quickly transmitted*2 to an HDD in a Windows® PC/Mac. This makes it easier to use motion images in new IT applications*3, like content production, Internet distribution and source material archiving. AVCHD’s direct editing also saves your time and effort in TV program production. And AVCHD means lower costs for both media and equipment maintenance.

AVCHD Nonlinear Editing

AVCHD files can be transferred at high speed by using the USB 2.0 interface to connect the AG-HMR10 to a Windows PC/Mac. This dramatically improves productivity when compared with the time-consuming task of digitizing.

AVCCAM Restorer (Free Download)

The AVCCAM Restorer is software for restoring inconsistencies in video data recorded on an SDXC/SDHC/SD Memory Card. The software mainly targets inconsistent data created under the following conditions:
-When the camera recorder fails to complete writing of the file in the normal manner due to the power being cut or the like.
-When the writing of the recorded video data to the SDXC/SDHC/SD Memory Card has failed.

* This software can only be used with AVCHD clips recorded by a Panasonic AVCCAM series camera.
* This software targets recorded data that has been damaged for restoration. It is not capable of performing processing to restore deleted data.

AVCCAM SD Card File Recovery (Free Download)

The AVCCAM SD Card file recovery is software for repairing the file which was erased or formatted accidentally. It supports SDXC/SDHC/SD Memory Card.

* This software can only be used with AVCHD, DV and JPEG clips recorded by a Panasonic AVCCAM series camera.
* Note that it will not always be possible to restore the data using this software.

AVCCAM Importer (Under development)

AVCCAM Importer is a software for Apple Final Cut Pro to enable direct editing of AVCHD * .mts* file without conversion. Since AVCCAM Importer is a plug-in component for Apple QuickTime, QuickTime Player can play AVCHD *.mts* file and other software based on QuickTime Framework can also handle AVCHD *.mts* file directly after installation of AVCCAM Importer on a Mac.

*AVCCAM Importer supports the AVCHD files produced by AVCCAM products only.

* Note that it will not always be possible to repair the file using this software.

*1: Some editing software may require conversion to an intermediate codec. The conversion speed will vary depending on the hardware specifications of the Windows PC/Mac, the software used for converting, and the file format being converted.
*2: Maximum speed: 22 MB/s (Using a Class 10 SDHC Memory Card. Speed depends on the hardware specifications of the Windows PC/Mac.) Some computers may not recognize the SDHC Memory Card. If that occurs, use an SDHC Memory Card Reader.
*3: Optional AVCHD-compatible software is required. The minimum system requirements for using the software must also be satisfied.

AVCCAM Viewer*

AVCCAM Viewer for Windows PC/Mac® makes it easy to preview AVCCAM files and other AVCHD motion images, still images and meta-data, with very simple operation. Files can be played from an SDXC*/SDHC/SD Memory Card, BD (Blu-ray Disc™), or hard disk, and saved to a PC (hard disk) from an SDXC*/SDHC/SD Memory Card or BD. Files can also be copied or deleted, meta-data can be displayed, and data can be written to an SDXC*/SDHC/SD Memory Card or BD*4.

AVCCAM Importer supports the AVCHD files produced by AVCCAM products only.

* New AVCHD transcoding software is available for free downloading on the following website.
<For US customers: www.panasonic.com/broadcast>
<Outside US: https://eww.pavc.panasonic.co.jp/pro-av/support/desk/e/download.htm>

*1: AVCCAM Viewer doesn’t support DV files.
*2: Copying and playing data on BD (BD-RE Ver.3.0) are not supported by Mac OS X 10.4 (Tiger).
*3: Mac version doesn’t support SDXC memory card.
*4: Do not insert a disc [DVD (AVCHD)] produced with the provided HD Writer 2.5E software into a device that does not support the AVCHD standard. If it is inserted into such a device, the disc may not eject. Also, do not play the disc with a device that does not support the AVCHD standard.
Options

**VW-VBG260**
Battery Pack
- 7.2 V 2.840 mAh/2,500 mAh (typ./min.)
(Bundled with the AG-HMR10)

**RP-SDW32G**
SDHC Memory Card

**RP-SDW16G**
SDHC Memory Card

**BT-LH2550**
65 cm (25.5 inches)

**BT-LH1760**
43 cm (17 inches)

**BT-LH1710**
43 cm (17 inches)

**BT-LH910G**
NEW (Coming soon)

LCD monitors

* HD-SDI/HDMI selectable output. The HD-SDI output can be connected directly to a professional video monitor’s HD-SDI input for monitoring the signal. If using the HDMI output to connect to a professional video monitor (BT-LH2550/LH1760/LH1710), an optional HDMI to DVI-D conversion connector is required. Audio is not output during DVI-D conversion.

* These options are not available in some areas.

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**Interface**

*1: When a microphone is connected, the audio input from the microphone is automatically selected.

*2: HD-SDI/HDMI selectable output. An optional HDMI-DVI-D conversion connector is required to connect a professional video monitor (BT-LH2550/LH1760/LH1710) via HDMI. Audio is not output during DVI-D conversion.

*3: Input is not possible when the AG-HCK10G is connected.
Superb Full-HD Image Quality

High-Quality, Multi-Angle Shooting
A 3MOS System with Full-HD Sampling

Camera Head for AG-HMR10 (optional)
AG-HCK10G

allows operation from a distance
Teams with AG-HMR10 Recorder

Zoom, focus, iris, shutter speed and white balance adjustments, as well as camera setup, can all be made from the AG-HMR10. Its built-in stereo microphone also lets you adjust the audio levels. The camera head option cable (optional) comes in 3 m (9.84 ft) (AG-C20003G) and 20 m (65.62 ft) (AG-C20020G) lengths to match your application.

Highly Detailed Image Capture
A Progressive 3MOS Sensor with Approx. 2.51 Megapixels

The progressive 3MOS image sensors record full-HD images with a total, 3.05-megapixel (approx.) resolution [effective motion-image resolution of 2.51 megapixels (approx.)]. This produces full-raster HD images with high resolution and superb image quality. Because each of the three separate image sensors receives one of the three primary colors of light (red, green and blue), they render more precise images and more faithful colors than the single light-receiving 1MOS sensor.

What's the 3MOS System?
3MOS (MOS= Metal Oxide Semiconductor)
Image Sensors Process the three primary colors of light (red, green and blue).

HD multi-format recording

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<td>1080</td>
<td>1080/59.94i</td>
<td>1080/50i</td>
</tr>
<tr>
<td>1080 (only PH mode)</td>
<td>1080/29.97p, 1080/23.98p (Native*)</td>
<td>1080/25p</td>
</tr>
<tr>
<td>720 (only PH mode)</td>
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* When the system frequency has been changed, turn the unit’s power off and then back on so that the setting takes effect.
*1: In the Native mode, AG-HMR10 record only active frames.

Up to 120x Zoom Power
HD Lens Unit

Even at the 490 mm zoom setting (35 mm lens equivalent), this advanced 12x optical zoom lens is free of image degradation. And the AG-HMR10 is equipped with a digital zoom that instantly magnifies the image by any of three fixed values: 2x, 5x or 10x. Use it together with the 12x optical zoom lens, and you get super magnification equivalent to a 120x zoom, without the drop in light intensity that happens when using a lens extender. This advanced lens also lets you capture 40.8 mm wide-angle shots (35 mm lens equivalent) — unusual for such a compact unit.

* The image quality decreases as the digital zoom magnification increases.

Take Clear Shots While Walking or Zooming
Optical Image Stabilizer (OIS)

Because hand-shake correction is done by actually driving the lens, there’s none of the image degradation that occurs with electronic stabilization. You can capture beautiful, high-quality shots even in situations where hand-shake is typically a big problem — such as when zooming, shooting indoors in dim lighting, or shooting outdoors at night.

* Hand-shake from strong vibrations may remain.
Also, visible differences may be slight under some conditions.
AG-HMR10

**Specifications**

**[GENERAL]**
- **Power Supply:** DC7.2 V (using with battery), 7.3 V (using with AC adapter)
- **Power Consumption:** 11.7 W (when the optional AG-HCK10G Camera Head is connected), 8.5 W (in standalone condition)
- **Operating Temperature:** 0 °C to 40 °C (32 °F to 104 °F)
- **Operating Humidity:** 10 % to 80 % (No condensation)
- **Weight:** Approx. 580 g (Approx. 1.28 lb.) excluding battery
- **Dimensions (W x H x D):** 96 x 52.6 x 133 mm (3-3/4 inches x 2-1/8 inches x 5-1/4 inches) excluding the projection

**[Video Recording]**
- **Recording Format:** [SDI Input:** HD-SDI Input, BNC x 1, 0.8 Vp-p, 75 Ω
  **SDI Output:** HD-SDI/SD-SDI Output, BNC x 1, 0.8 Vp-p, 75 Ω
- **AG-HCK10G Input:** 20-pin dedicated terminal (connection with the AG-HCK10G)
- **AG-HCK10G Output:** HD-SDI Output x 1 (not compatible with VIERA Link)

**[Audio System]**
- **Compression Method:** Recording/Playback: Dolby Digital/2 ch
- **Sampling Frequency:** 48 kHz
- **Quantization:** 16 bit

**[Video System]**
- **Shutter Speed**
  - [50 Hz] 1080/50i, 1080/25p, 720/50p, 720/60p, 720/30p (over 60p)
  - [59.94 Hz] 1080/60i, 720/60p, 720/24p (native), 720/30p (over 60p), 720/25p (native), 720/50p (over 50p)
- **White balance:** ATW, preset 2500 K, preset 3200 K, preset 5600 K, W.set
- **Gain Selection:** 0 dB to +36 dB (Variable in 1-dB steps)
- **Filter Diameter:** 43 mm

**AG-HCK10G**

**Specifications**

**[GENERAL]**
- **Power Supply:** DC8 V-9 V (Supplied from the AG-HMR10)
- **Power Supply:** DC8 V-9 V (Supplied from the AG-HMR10)
- **Power Consumption:** 3.5 W
- **Dimensions (W x H x D):** 53.5 x 56 x 123.8 mm (2-1/8 inches x 2-1/4 inches x 4-7/8 inches)
- **Weight:** Approx. 275 g (Approx. 0.61 lb.)
- **SD Memory Card:** Approx. 1,000 frames/page (when formatted, 1,000 clips displayed)
- **Editing Functions:** Delete, write-protect
- **Formatting Function:** Yes

**[Video Recording]**
- **SD Memory Card:** Max. recordable clips per card: 900 (after formatting, without removing/inserting the card)
- **Video Signals:** [59.94 Hz] 1080/50i, 1080/25p, 720/50p, 720/60p, 720/30p (over 60p), 720/25p (native), 720/50p (over 50p)

**[Audio System]**
- **Audio Input:** Internal Microphone: Stereo microphone

**[Standard Accessories]**
- **SDI Connector:** SDI Input: HD-SDI Input, BNC x 1, 0.8 Vp-p, 75 Ω
- **SDI Output:** HD-SDI Output, BNC x 1, 0.8 Vp-p, 75 Ω
- **AG-HCK10G Input:** 20-pin dedicated terminal (connection with the AG-HCK10G)
- **AG-HCK10G Output:** HD-SDI Output x 1 (not compatible with VIERA Link)

**[Video Output]**
- **AG-HMR10 Output:** 20-pin dedicated terminal (connection with the AG-HMR10)

**[Audio Input]**
- **Internal Microphone:** Stereo microphone

**[Standard Accessories]**
- **Lens cap:** (mounted to the AG-HCK10G, Lens hood (mounted to the AG-HCK10G)
- **Battery:** Approx. 1.52 lb. (including bundled battery, excluding the projection part)
- **Weight:** Approx. 691 g (Approx. 1.52 lb.) including bundled battery

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*AVCHD, AVCHD Lite, DVCPro HD, DVCPro50, DVCPro, D1, D5, P2, P2C, P2D, P2K are trademarks of Panasonic Corporation.

(Unit: in PH mode with 1920 x 1080 pixels and using a 32 GB SDHC Memory Card)

* Weight and dimensions shown are approximate. Specifications are subject to change without notice.
Suppresses Blocked Shadows and Blown Highlights

Dynamic Range Stretch (DRS)

A gamma curve and knee slope are estimated to match the contrast of each pixel, and applied in real time. When dark, bright, and intermediate shades are all contained in the same scene, this produces excellent gradation for each shade and minimizes blocked shadows and blown highlights. The images that result are enhanced by a visually wider dynamic range.

Images with the Dynamic Range Stretch (DRS) Effect

<table>
<thead>
<tr>
<th>Image with DRS OFF</th>
<th>Image with DRS ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blocked shadows are suppressed.</td>
<td>Blown highlights are suppressed.</td>
</tr>
</tbody>
</table>

Highly Detailed Image Composition

Advanced Pro-tuning Functions

- **Matrix settings**
  Let you choose basic color hues that convey the desired overall image mood.

  - NORM1: For colors suited to shooting outdoors or under halogen lights.
  - NORM2: For colors more vivid than NORM1.
  - FLUO: For colors suited to shooting indoors under fluorescent lights.
  - CINE-LIKE: To reproduce colors similar to those in movies.

- **Knee point settings**
  Controls the highlights within the frame. (AUTO/LOW/MID/HIGH)

- **Adjustable detail level, V detail level, detail coring and skin tone detail**
  Corrects edges, removes image noise, smooths skin's texture.

- **Adjustable chroma level, chroma phase, color temp and master pedestal**
  Sets the basic levels for brightness and other signals.

- **White balance**
  1-value memory, 2-value preset (3200 K, 5600 K) and Auto Tracking White (ATW).

- **Zebra**
  Select any two levels from among 50 % to 105 %, in 5 % steps.

Cine-like Gamma Curves

7-mode Gamma for Richer Gradation

Drawing on technologies developed for the VariCam HD camera recorders for digital cinema, Panasonic has equipped the AG-HCK10G with advanced gamma functions that address seven different shooting scenarios and enhance your creative abilities. This includes the cine-like gamma, which produces the characteristic warm tone of film recordings.

AG-HCK10G Gamma Modes

<table>
<thead>
<tr>
<th>Mode</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HD NORM</td>
<td>Suitable for HD recording</td>
</tr>
<tr>
<td>LOW</td>
<td>Works to flatten out a high contrast scene</td>
</tr>
<tr>
<td>SD NORM</td>
<td>Normal setting for SD (This was available in the DVX100 series.)</td>
</tr>
<tr>
<td>HIGH</td>
<td>Expands the tone of dark parts and make a brighter image. The contrast softens</td>
</tr>
<tr>
<td>B.PRESS</td>
<td>Makes the contrast sharper than LOW</td>
</tr>
<tr>
<td>CINE-LIKE-D</td>
<td>The Cine-like mode shifted to prioritize dynamic range</td>
</tr>
<tr>
<td>CINE-LIKE-V</td>
<td>The Cine-like mode shifted to prioritize contrast</td>
</tr>
</tbody>
</table>

Quick, Easy Focusing

HD Focus Assist Function

In addition to the center zoom function, which enlarges the center area of the image for easier focusing, a focus bar can be displayed to indicate the focus level by the length of the bar. A peak hold function in the focus bar makes it easy to find the optimal focus position. The One-Push Auto Focus mode also lets you temporarily switch to AF mode during manual focusing.

Wide Range of Settings

Slow Shutter and Synchro Scan Functions

The slow shutter function uses image accumulation to allow shutter speeds with frame rates reduced by half or more. The accumulation method provides bright-color images with less noise than those captured using conventional gain-up, so you get the higher sensitivity needed for nighttime shooting without illumination.

Options

- VW-W4307H: Wide-conversion lens
- VW-T4314H: Tele-conversion lens
- AG-C20003G: 3 m (9.84 ft)
- AG-C20020G: 20 m (65.62 ft)

* These options are not available in some areas.
**Highly Flexible Shooting**
For Use in a Wide Range of Fields

**Recording Unique News Angle**
The AG-HCK10G makes it easy to shoot from high angles. And because the AG-HMR10 recorder comes standard with HD-SDI output, you don't need a converter for connecting to an HD digital broadcast recorder, an HD switcher, or a relay transponder.

**Recording Plant and Animal Observations**
The compact AG-HCK10G can be easily set up in the shadow of a tree for close-up observation of plants and animals in their natural habitat. The Time Stamp function lets you insert information such as the date and time directly onto the images as you record, for scientific use.

**Shooting from Special Angles**
The AG-HCK10G lets you shoot from angles that would be difficult with ordinary cameras, such as high places and narrow spaces. Because the recorder and camera are separate, even if some unexpected problem would occur with the camera, the recorded data remains safe.

* Not drip-proof.
* Cannot be used in an enclosed condition.
* Wiring and installation/removal require specialized skills and experience.
To ensure safety, consult your dealer for wiring and installation/removal.

**Interface**

- **Side View**: 123.8 mm (4-7/8 inches)
- **Bottom View**: 1/4-20UNC depth 5.5 mm (7/32 inches)
- **Rear View**: 49.8 mm (1-31/32 inches)

- **Side View**: 56 mm (2-7/32 inches)
- **Bottom View**: 53.5 mm (2-3/32 inches)
- **Rear View**: 35 mm (1-3/8 inches)

- **Side View**: 55.45 mm (2-3/16 inches)
- **Bottom View**: 14 mm (9/16 inches)
- **Rear View**: 56 mm (2-7/32 inches)
**P2 Asset Support System**

The free member's service program for P2HD/AVCCAM

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Please refer to the latest Nonlinear Compatibility Information, AVCHD Support and Download and Service Information, etc. at panasonic website.

For US Customer: www.panasonic.com/avccam
For Outside US: https://eww.pavc.panasonic.co.jp/pro-av/index.html

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**Factories of Systems Business Group have received ISO14001:2004-the Environmental Management System certification. (Except for 3rd party's peripherals.)**