

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

Camera Head  
for AG-HMR10 Series (optional)

### AG-HCK10G



\* The image is simulated.

#### Allows Operation from a Distance Teams with AG-HMR10 Series Recorder

Zoom, focus, iris, shutter speed and white balance adjustments, as well as camera setup, can all be made from the AG-HMR10 Series. 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

Recording Format	When set to 59.94 Hz	When set to 50 Hz
1080	1080/59.94i	1080/50i
1080 (only PH mode)	1080/29.97p, 1080/23.98p (Native*)	1080/25p
720 (only PH mode)	720/59.94p, 720/29.97p, 720/23.98p (Native*)	720/50p, 720/25p

\* 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 Series record only active frames.

#### Up to 120x Zoom Power HD Lens Unit

Even at the 400 mm zoom setting (35 mm lens equivalent), this advanced 12x optical zoom lens is free of image degradation. And the AG-HMR10 Series 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.

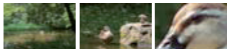


Image with Wide-angle

Image with 12x optical zoom

Image with 12x optical zoom x  
10x digital zoom (120x)

#### 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.



Image with OIS OFF

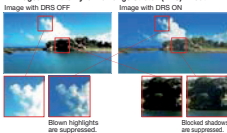


Image with OIS ON

## 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



## Highly Detailed Image Composition Advanced Pro-tuning Functions

### Matrix settings

Lets you choose basic color hues that convey the desired overall image mood.

<b>NORM1</b>	For colors suited to shooting outdoors or under halogen lights.
<b>NORM2</b>	For colors more vivid than NORM1.
<b>FLUO</b>	For colors suited to shooting indoors under fluorescent lights.
<b>CINE-LIKE</b>	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, smoothes 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.

## Options



VW-W4307H  
Wide-conversion lens



VW-T4314H  
Tele-conversion lens



AG-C20003G 3 m (9.84 ft)  
AG-C20029G 20 m (65.62 ft)  
Camera Head Option Cable

\* These options are not available in some areas.

## Cine-like Gamma Curves 7-mode Gamma for Richer Gradation

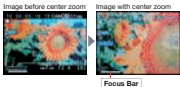
Drawing on technologies developed for the VariCam HD camera-recorders for digital cinema, Panasonic has equipped the AG-HCK10G with advanced gamma functions that address seven different shooting scenarios and enhance your creative abilities. This includes the cine-like gamma, which produces the characteristic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

### AG-HCK10G Gamma Modes

<b>HD NORM</b>	Suitable for HD recording
<b>LOW</b>	Works to flatten out a high contrast scene
<b>SD NORM</b>	Normal setting for SD (This was available in the DVX100 series.)
<b>HIGH</b>	Provides more contrast and color gradation
<b>B.PRESS</b>	Provides more contrast and blacks in low contrast scenes
<b>CINE-LIKE-D</b>	The Cine-like mode shifted to prioritize dynamic range
<b>CINE-LIKE-V</b>	The Cine-like mode shifted to prioritize contrast

## 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.



\* This function cannot be used for digital zooming.

## 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.



## 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 Series 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 should 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



# AG-HCK10G

## Specifications

### [GENERAL]

Power Supply:	DC8 V-0 V (Supplied from the AG-HMR10 Series)
Power Consumption:	3.5 W
Operating Temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating Humidity:	10 % to 80 % (No condensation)
Weight:	Approx. 275 g (Approx. 0.61 lb.)
Dimensions (W x H x D):	53.5 x 56 x 123.8 mm (2.11 x 2.20 x 4.87 inches) excluding the projection part

### [CAMERA]

Pick-up Device:	CMOS (1/4.1-inch progressive modes supported)
Picture Elements:	Effective: Approx. 2.51 megapixels x 3 (16:9)
Lens:	Lens with optical image stabilizer, 12x zoom, F1.8 to 2.8 (f=4.0 mm to 48 mm), 35 mm equivalent: 40.8 mm to 490 mm (16:9)
Filter Diameter:	43 mm

Optical Color Separator:	Prism system
ND Filter:	Auto On/Off by IRIS

Minimum shooting distance:	Approx. 35.43 inches (Approx. 0.9 m)
Gain Selection:	0 dB to +34 dB (Variable in 1-dB steps)

White balance:	ATW, preset 3200 K, preset 5600 K, W, set
Shutter Speed (Preset):	[50/94 Hz] 60/50p mode: 1/60 sec. to 1/2000 sec. (7 steps) 30p mode: 1/30 sec. to 1/2000 sec. (8 steps) 24p mode: 1/24 sec. to 1/2000 sec. (8 steps) [50 Hz] 50/50p mode: 1/50 sec. to 1/2000 sec. (7 steps) 25p mode: 1/25 sec. to 1/2000 sec. (8 steps)

Shutter Speed (Synchro Scan):	[50/94 Hz] 60/50p mode: 1/60 sec. to 1/250.0 sec. 30p mode: 1/30.0 sec. to 1/250.0 sec. 24p mode: 1/24.0 sec. to 1/250.0 sec. [50 Hz] 50/50p mode: 1/50.0 sec. to 1/250.0 sec. 25p mode: 1/25.0 sec. to 1/250.0 sec.
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Slow Shutter Speed:	[50/94 Hz] 60/50p mode: 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec., 1/30 sec. 30p mode: 1/2 sec., 1/4 sec., 1/8 sec., 1/15 sec. 24p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec. [50 Hz] 50/50p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec., 1/25 sec. 25p mode: 1/2 sec., 1/3 sec., 1/6 sec., 1/12 sec.
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Minimum Luminance:	Approx. 1 lx (Gain: +34 dB, Slow Shutter: 1/2 sec.)
Digital Zoom:	2x/5x/10x (When set to 50/94 Hz: 1080/60, 720/60p only; when set to 50 Hz: 1080/50, 720/50p only)

### [Video Recording]

Recording Video Format*:	[50/94 Hz] (H mode: 1080/60, 1080/30p (over 60), 1080/24p (native)**, 720/60p, 720/30p (over 60) and 720/24p (native)**, (Recording with the AG-HMR10 Series) HA, HG and HE mode: 1080/60 only
[Recording with the AG-HMR10 Series]	[50 Hz] (H mode: 1080/50, 1080/25p (over 50), 720/50p and 720/25p (over 50p) HA, HG and HE mode: 1080/50 only

### [Video Output]

AG-HMR10 Series Output:	20-pin dedicated terminal (connection with the AG-HMR10 Series)
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### [Audio Input]

Internal Microphone:	Stereo microphone
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### [Standard Accessories]

Lens cap (mounted to the AG-HCK10G), Lens hood (mounted to the AG-HCK10G)
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- \*S: When the system frequency has been changed, turn the unit's power off and then back on so that the setting takes effect.  
\*\*E: In the Native mode, AG-HMR10 Series record only active frames.

\* Weight and dimensions shown are approximate. Specifications are subject to change without notice.

Available from



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