

JVC

4K Memory Card Camcorder

GY-HMQ10



A New Era of 4K

- 60p/50p Capable, Professional 4K Handheld Camcorder
- SDHC/SDXC 4-Slot Simultaneous Recording (4K mode)
- 4K Archive and File Merge Utility Software
- Smooth Integration with Existing NLE Systems

The above picture shows GY-HMQ10 with the optional microphone.

The Age of 4K Now a Reality

The GY-HMQ10 is the world's first* professional-use handheld 4K camcorder, utilizing JVC's high-speed FALCONBRID™ image processor to realize real-time capture and recording of 3,840 x 2,160 images up to 60p. And thanks to the use of widely available recording media, standard video encoding and smooth integration with existing NLE systems, the camera marks the arrival of an accessible 4K workflow. Geared toward content creation, the GY-HMQ10 is ideal for production use, public institutions and educational establishments that have a need for ultra high-resolution video.



* As a professional-use compact camcorder. As of March 16, 2012 (source: JVC)



The above picture shows GY-HMQ10 with the optional microphone.

4K (3,840 x 2,160) Recording

The GY-HMQ10 is capable of real-time capture and recording of 4K QFHD (Quad Full High Definition) video – 3,840 x 2,160 pixels – at 24p, 50p or 60p. It also functions as a Full HD camcorder capable of recording 1,920 x 1,080 at 50/60p or 50/60i in the popular AVCHD format.



FALCONBRID™ Engine

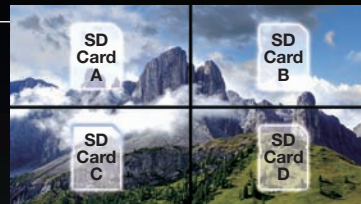
FALCONBRID™

FALCONBRID™ is JVC's high-speed processor for advanced video applications. The processing power provided by the multiple FALCONBRID™ processors on-board the GY-HMQ10 makes possible – for the first time in a handheld camcorder – the real-time capture, processing, recording and output of 4K images.



Records to SDHC/SDXC

The GY-HMQ10 uses economical and widely available SDHC/SDXC Memory Cards as recording media. In 4K mode, encoded video at up to 144 Mbps is recorded simultaneously to quad memory cards. A supplied JVC software utility merges the four separate files into a single file that can be edited on compatible NLE systems.



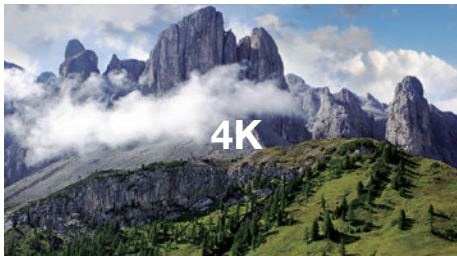
Smooth 4K Recording and Workflow Realiz

The GY-HMQ10 makes the adoption of a 4K recording and editing workflow as smooth and as possible through its use of widely used and economical recording media, as well as familiar video and audio encoding and file formats. The GY-HMQ10 also functions as a highly capable Full HD camcorder, recording natively at 1,920 x 1,080 at up to 60p.

4K 60p/50p/24p Recording

In 4K mode, images are recorded as four Full HD quadrants, giving a total image resolution of 3,840 (H) x 2,160 (V). The quadrants are recorded simultaneously to quad SDHC/SDXC memory cards at a variable bit rate of up to 144 Mbps. Video is encoded in the efficient H.264/MPEG-4 format (as .MP4 files) at a frame rate of 60p, 50p or 24p. When shooting in HD mode, AVCHD-encoded video files are

recorded to a single SDHC/SDXC memory card.

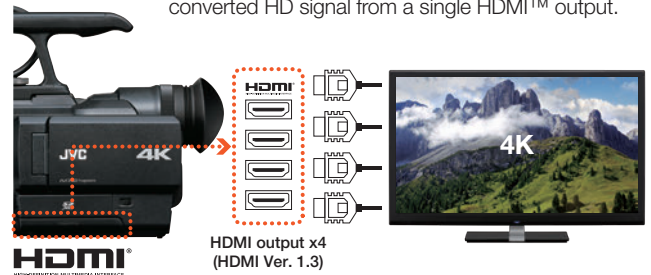


4K recordings of up to 2 hours are possible using four 32GB SDHC/SDXC cards.



Live 4K 60p/50p Output via HDMI™ Interface

Thanks to the on-board processing power of multiple FALCONBRID™ processors, live video can be output via four HDMI™ outputs for connection to 4K-compatible monitors and projectors. When no 4K monitor is available, there is also the option to output a down-converted HD signal from a single HDMI™ output.



Full HD Trimming Function from 4K Content

A unique function of the GY-HMQ10 is the ability to output a Full HD window from a 4K frame. Touching the camera's Touch Screen during recording or playback creates a Full HD 1,920 x 1,080 window, which can be moved freely within the 4K frame by simply moving one's finger.

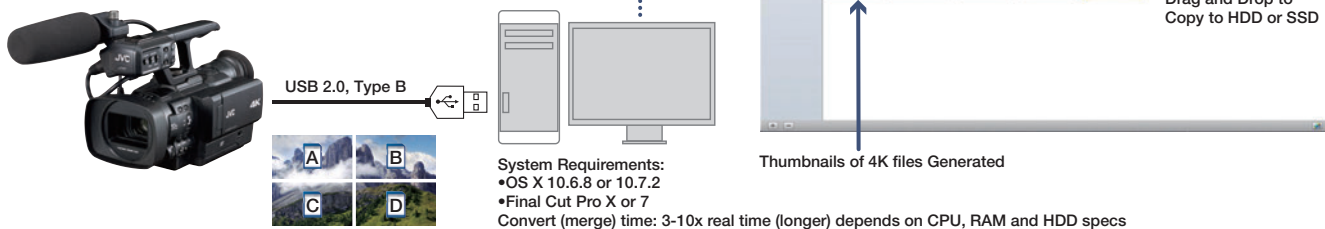


The picture shows GY-HMQ10 with the optional microphone.

JVC 4K Clip Manager*: Archive and File Merge Utility for 4K Editing Workflow

A Mac-compatible archive and file merge software utility that works alongside Apple Final Cut Pro simplifies the process of ingesting and converting files for editing. Connecting the GY-HMQ10 to a Mac using a USB cable, or using an SD memory card reader (not supplied) allows direct access to the scenes recorded on the quad memory cards. The required scenes can then be selected for combining into individual 4K ProRes 422 files that can be edited in Final Cut Pro. For archiving data, simply drag and drop scene thumbnails to automatically copy all the associated files to the HDD or SSD. (JVC 4K Clip Manager is a free download from the JVC website)

* Installation of Final Cut Pro X or 7 is necessary for this utility to operate.

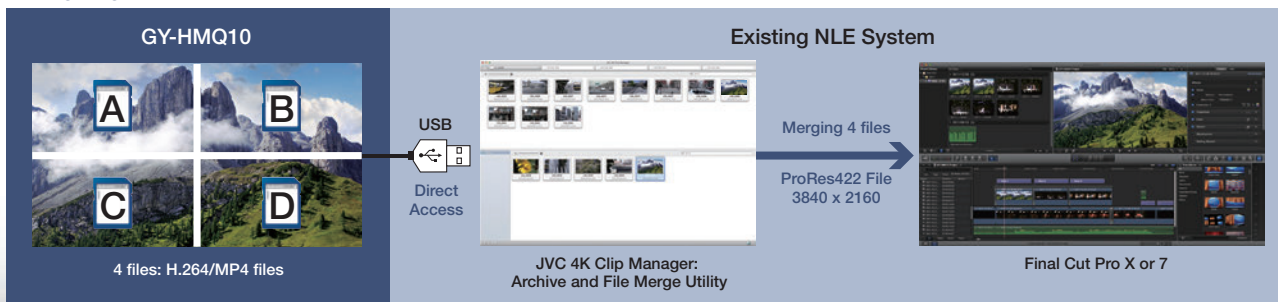


Integrated Workflow Using Existing NLE System



Full HD Content From Cropped 4K Recordings
Recording in 4K allows you not only to playback the full-resolution content, but also to create high-resolution 2K content from a cropped 4K image. This method provides added flexibility and is possible thanks to the ultra-high resolution of 4K recording.

4K Workflow



Full-Featured, High-Quality, Flexible 4K Rec

Even though the GY-HMQ10 is the first of its kind, its feature set is as fully realized as you would expect from a professional camcorder, from the Back-illuminated ultra high-resolution 1/2.3-inch CMOS image sensor, a specially designed 10x zoom lens, Rotary Optical Image Stabilizer, Focus Assist, manual and automatic control, and flexible handling of audio. Everything you need in a remarkably light and compact unit.

A Highly Portable Handheld Camcorder

- The GY-HMQ10 inherits its compact dimensions and superb portability from JVC's GY-HM150/HM100 ProHD camcorders, making it perfect for even extended field production assignments.



1/2.3" 8.3M Back-illuminated CMOS Sensor

- At the heart of the GY-HMQ10 is a single 1/2.3-inch Back-illuminated CMOS device with 8.3 million active pixels capable of capturing 3,840 x 2,160 resolution images – four times the resolution of Full HD. The single device design ensures sharp, precise images with minimal aberration.

Ultra High-resolution F2.8 10x Zoom Lens

- The GY-HMQ10 is equipped with an ultra high-resolution f=6.7–67 mm (35 mm conversion: 42.4–424 mm) 10x zoom lens especially developed for 4K imaging. The lens has been designed with a high degree of optical precision so that peripheral distortion and chromatic aberration are minimized.



Rotary Optical Image Stabilizer (ROIS)

- With the increased resolution and sharpness of HD and 4K pictures, even a small amount of camera shake can become noticeable. JVC's Rotary Optical Image Stabilizer corrects for lateral and vertical movement of the camera without the degradation of image quality associated with digital image stabilisation systems. The result is pristine HD and 4K images that remain sharp and stable.

Audio Recording and Monitoring

- In 4K mode, audio is recorded as 2ch AAC, while in HD mode, 2ch audio is recorded using the AC3 codec. Audio can be recorded either from the built-in microphone, or via the balanced XLR audio inputs located on the handle. The audio inputs accept either line or mic-level signals, and phantom power is available independently for each input. Audio recording levels can be controlled automatically or manually, and the audio itself can be monitored visually using the audio level meter in the viewfinder or LCD monitor, or directly on headphones via the \varnothing 3.5mm headphone output jack.



The picture shows GY-HMQ10 with the optional microphone.

Focus Assist

- The ultra high resolution of 4K video makes accurate focusing critical. JVC developed Focus Assist to make accurate 4K focusing quick and easy. When Focus Assist is switched on, the image in the viewfinder or LCD monitor switches to monochrome and all objects that are in focus appear with colored edges (selectable from red, green, blue or multi-color). Keeping the important elements in the picture in focus while shooting is greatly simplified.



Wired Remote Control

- The GY-HMQ10 is supplied with a wired remote interface (ø 3.5mm connector) for remote operation when using the camcorder on a tripod, jib, crane or boom.



3.5" 920K Pixels Touch Panel LCD Monitor

- A 3.5-inch 920K Pixels 16:9 aspect ratio Touch LCD monitor provides not only an alternative to the viewfinder when shooting, it also serves to provide a range of monitoring and setup indicators. The full-screen touch panel, combined with a newly designed GUI, enable fast, intuitive control.



Automatic Convenience & Manual Flexibility

- Many of the GY-HMQ10's shooting parameters can be set to automatic, or can be controlled manually – from shutter speed and exposure to gamma adjustment and brightness gain. Three USER buttons can be freely assigned to a range of functions, including Focus Assist, Tele Macro, Zebra and OFF.

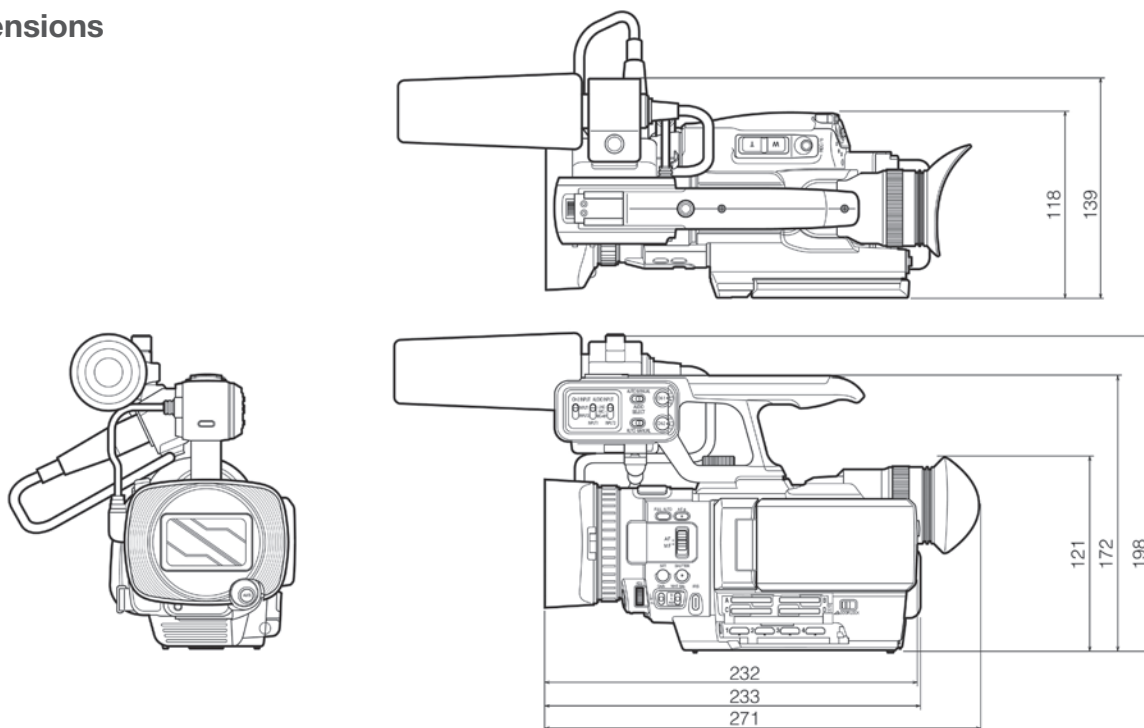
Manual Functions

- Zebra pattern
- Color matrix
- Gain settings of 0, 3, 6, 9, 12, 15, 18 dB & AGC can be assigned to the "L/M/H" gain switch
- Gamma Adjustment which gives rich expression of gradation



Dimensions

Unit: mm



Specifications

GY-HMQ10

GENERAL	
Power	DC 12V (AC adapter), DC 7.4V (Battery)
Power Consumption	More than 17.5 W (in 4K mode with LCD monitor) (when LCD screen backlight is set to [Level 3])
Dimensions	139 (W) x 198 (H) x 271 (D) mm (5-15/32" x 7-25/32" x 10-21/32") (with Audio unit)
Weight	Approx. 1.7 kg (3.6 lbs) (Including battery, optional microphone, SDHC cards)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to 50°C (-4°F to 122°F)
Operating Humidity	35% to 80%
Storage Humidity	Under 85%
CAMERA	
Image Sensor	1/2.3" 8.3M pixels Back-illuminated CMOS
Synchronizing System	Internal Synchronization
Stabilizer	Optical Image Stabilizer (ROIS)
Lens	F2.8 to 4.5, 10x, f=6.7-67 mm (35 mm conversion: 42.4-424 mm)
Filter Diameter	When the hood is detached: 46 mm (screw pitch: 0.75 mm) Compatible with filter, tele-converter and wide-converter When the hood is attached: 72 mm (screw pitch: 0.75 mm) Compatible with filter only
Shutter Speed	1/2 to 1/4000
Gain	0dB, 3dB, 6dB, 9dB, 12dB, 15dB, 18dB, AGC
LCD Display	3.5" LCD, 920,000 pixels, 16:9, color, Touch Panel
Viewfinder	0.24" LCOS, 260,000 pixels, 16:9, color
VIDEO/AUDIO RECORDING	
Recording Media	SDHC/SDXC (Class 6/10), SDHC/SDXC Slots x 4
Video Recording	4K: MPEG-4 AVC/H.264 (.MP4) 4 Stream Separate Recording HD: AVCHD/AVCHD Progressive
Recording Mode	4K settings: 3840 x 2160/60p/50p/24p VBR, Approx. 144 Mbps (Max) MPEG-4 AVC/H.264 Audio: AAC 2ch, 48 kHz/16bit 384kbps HD settings: 1920 x 1080/60p/60i/50p/50i 60p/50p mode: VBR, Approx. 28Mbps (Max) UXP mode: VBR, Approx. 24 Mbps XP mode: VBR, Approx. 17 Mbps SP mode: VBR, Approx. 12 Mbps EP mode: VBR, Approx. 5 Mbps Audio: AC3 2ch, 48 kHz/16bit 256kbps
Video Frame Rate	NTSC settings: 4K: 3840 x 2160/59.94p, 23.98p HD: 1920 x 1080/59.94i, 59.94p PAL settings: 4K: 3840 x 2160/50p HD: 1920 x 1080/50i, 50p
INTERFACE	
Video Output	Mini HDMI output x 4 (4K: HDMI x 4 HD: HDMI x 1)
Audio Input	XLR x 2 (MIC, +48V/LINE) (Built-in stereo microphone is available)
Remote Control	ø 3.5 mm mini jack (4-pin)
Headphone	ø 3.5 mm mini jack (Stereo)
USB	Mini-USB2.0, Type-B
PROVIDED ACCESSORIES	Battery pack x 1, AC adapter x 1 (On machine battery charge function is available)
OPTIONAL ACCESSORIES	Battery pack (SSL-JVC50), Battery charger (LC-2J)

■ **SDHC Class6/10, SDXC Recording Times (approx.)**

Recording Format	Quality	4GB	8GB	16GB	32GB	48GB	64GB (SDXC)
1920 mode	60p/50p	15m	30m	1h	2h	3h	4h
	UXP	20m	40m	1h 20m	2h 50m	4h 10m	5h
	XP	30m	1h	2h	4h	6h	8h 10m
	SP	40m	1h 20m	2h 50m	5h 50m	8h 30m	11h 30m
	EP	1h 40m	3h 30m	7h 10m	14h 40m	21h 30m	28h 50m

Optional Accessories

- **SSL-JVC50 Battery (IDX)**



- **LC-2J Battery Charger (IDX)**



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