JVC

HD/SD Memory Card Camcorder

GY-HM620

Supreme Handheld Mobile News Camera

ProHD

HDMI HIGH-DEFINITION MULTIMEDIA INTERFACE

SDHC CLASS 10 SDHC CLASS 6 SDHC CLASS 4 SDXC

AVCHD Progressive

MOV QuickTime™ MP4

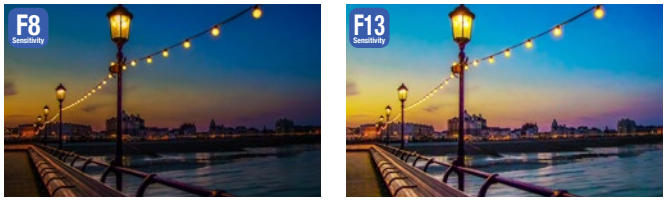
Shown with optional microphone.

The Camcorder Still Evolving – Enhanced Operability to Make the Most of Any Moment

The GY-HM620 is an advanced handheld ProHD camera that delivers unsurpassed imagery and other features for news, sports, and independent production. The new 620 has upgraded CMOS devices for greater sensitivity and a brighter LCD display for outdoor daylight viewing. Versatile and extremely easy to use, there's no better camera for fast-paced HD field production.

Newly developed 1/3-inch 3CMOS Sensor (1920 x 1080) boasts Sensitivity of F12/F13 (60/50Hz)

At the heart of the GY-HM620 are three, newly developed 1/3-inch CMOS sensors with 2.5M pixels, each capable of capturing full HD 1920 x 1080 resolution images. Featuring 12-bit processing, an excellent sensitivity of F12 (60Hz) /F13 (50Hz) at 2000 lux, and a remarkable signal-to-noise ratio, the devices provide superior precision and color reproduction with minimal aberration. For improved CMOS sensor performance, flash-band compensation is also supported.



Compare the image brightness between sensitivity of F8 (left) of a conventional camera and F13 (50Hz) at 2000 lux on the GY-HM620.

Revolutionary FALCONBRID™ Image Processing Engine

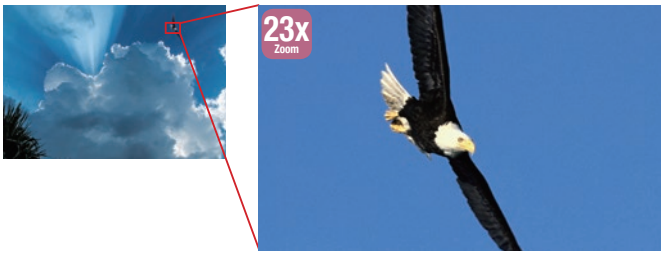
FALCONBRID™ is JVC's high-speed processor for advanced video applications. Delivering tremendous processing power on a single chip, the on-board engine is capable of processing large amounts of video data at exceptional speeds. The combination of FALCONBRID™ engine, 2D DNR processing & compensation circuitry, and wide dynamic range achieve superior image quality.

FALCONBRID™

23x Fujinon Auto Focus Zoom Lens with Manual Functions

The GY-HM620 is equipped with the Fujinon wide angle 23x optical zoom lens to offer sufficient magnification for shooting. Delivering superior low-light performance and ensuring brightness at the tele end, the lens offers F1.6-3.0, a focal range of 29mm-667mm (35mm equivalent) and includes servo zoom, manual focus, and iris rings, along with a four-position (clear, 1/4, 1/16 and 1/64) ND filter. Other features include an optical image stabilizer and chromatic aberration correction.

Focus, zoom and iris rings are isolated and ergonomically aligned with buttons offering intuitive, stress-free operations.

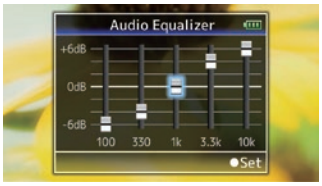


23x zoom lens, sufficient magnification for shooting, at Wide end (left) on to Tele end (right).

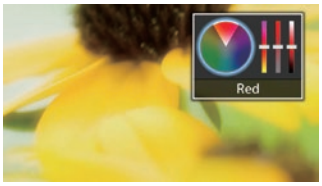
Upgraded High-resolution 920K Pixels 3.5-inch LCD Display with Focus Assist and various GUI

The high-resolution 920K pixels 3.5-inch LCD monitor provides a wide aspect ratio of 16:9 with a wide array of monitoring and setup indications. Since the LCD is top-mounted, not only is it ideal for shooting at various angles but also provides ample distance from the cameraman's eyes to the LCD to achieve better visibility in handheld camera applications. It also features a Focus Assist function that highlights the edges of objects shown in the viewfinder in color (red, green or blue) to help the cameraman stay focused on the action.

When the Focus Assist function is set to ON, objects that are in focus appear with colored edges (selectable from red, green or blue) as seen here.



Audio equalizer



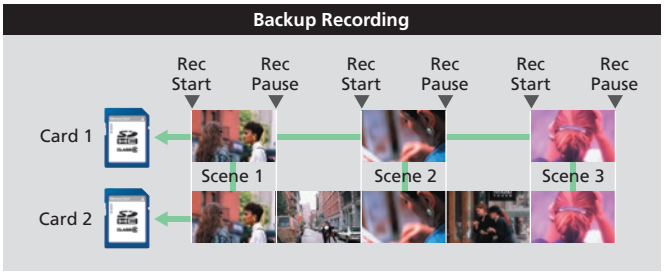
Color matrix adjustment

Dual SDHC/SDXC Card Slots for Maximum Versatility

Dual SDHC/SDXC card slots make the GY-HM620 a truly versatile camcorder, offering such benefits as series recording, dual recording, and backup recording modes with reliable and cost-effective media.

- **Series (relay) recording mode:** Continuous recording card by card.
- **Dual (simultaneous) recording mode:** Recording to 2 cards at same format for backup or multi-purpose.
- **Backup recording mode:** While the Rec trigger is used to REC and STOP recording on one card, the other card can act as a continuous backup that overrides the pause function.* This is a unique mode highly demanded by theatrical and bridal camera crew.

*During simultaneous backup recording in HD mode, the duplicate file records in the same file format and bit rate as the original.



Various Codecs and File Formats including the Original H.264 XHQ (50Mbps) mode

FALCONBRID™ engine is capable of supporting major file formats such as .MOV with Apple Final Cut Pro, .MP4 of XDCAM EX™ cameras, and .MTS for AVCHD compatibility, as well as high-definition images in MPEG-2 35Mbps (HQ) and AVCHD 28Mbs (Progressive) format.

Furthermore, the processor also supports H.264 video format in 50Mbs extreme high quality (XHQ) mode for virtually no block noise and to capture high-speed moving subjects.

Video format		MPEG-2			AVCHD					H.264		
Mode (Bit rate)		HQ (35Mbps)	SP (25Mbps)	SP (19Mbps)	Progressive (28Mbps)	HQ (24Mbps)	SP (18Mbps)	LP (9Mbps)	EP (5Mbps)	XHQ (50Mbps)	UHQ (35Mbps)	SD (8Mbps)
File format		MOV/MP4			MTS					MOV		
Audio format		Linear PCM 2ch			AC3 2ch					Linear PCM 2ch		
HD	1920 x 1080	60i/50i/ 30p/25p/24p			60p/50p	60i/50i	60i/50i			60p/60i/ 50p/50i/ 30p/25p/24p	60i/50i/ 30p/25p/24p	
	1440 x 1080	60i/50i/	60i/50i					60i/50i	60i/50i			
	1280 x 720	60p/50p/ 30p/25p/24p*1		60p/50p								
SD	720 x 480											60i*2/50i*3

*1: Only with MOV/M4 file formats *2: U only *3: E only

Just for Professional Utility – Cutting-edge Connectivity including SDI (HD/SD) Out

Equipped with leading edge connections, the GY-HM620 offers versatility while meeting the needs of professional applications. For easy monitoring of footage, you can monitor from the digital SDI and HDMI outputs simultaneously, easily switching between output in HD or SD.

- SDI (HD/SD) out
- HDMI (HD/SD) out (60p support)
- TC Sync in/out
- AV out
- USB (Device x1)
- XLR 3-pin x2 (MIC, +48V <phantom power>, LINE)
- Aux in for Wireless Receiver
- ø2.5mm Remote Control
- ø3.5mm Stereo Headphone out

Optional Accessories

SSL-JVC50
Standard Li-ion Battery (IDX)
DC7.4V, 4900mAh, 37Wh

SSL-JVC75
Long-life Li-ion Battery with D-TAP Connector (IDX)
DC7.4V, 7350mAh, 55Wh

LC-2J
7.4V 2-ch Simultaneous Charger (IDX)

◆ Specifications

GENERAL SPECIFICATIONS		
Power		DC12V (AC adapter), DC7.4V (Battery)
Power consumption		Approx. 10 W (with VF in REC mode, default setting)
Dimensions		177.5 mm (W) x 197 mm (H) x 415.5 mm (D)
Weight		approx. 2.4 kg (including battery)
Operation temperature		0°C to 40°C (32°F to 104°F)
Storage temperature		-20°C to 50°C (14°F to 122°F)
Operating humidity		30% to 80%
Storage humidity		under 85%
CAMERA		
Image sensor		1/3" CMOS 2.5M pixels
Synchronizing		Internal synchronization
Stabilizer		Optical image stabilizer
Lens		F1.6 (wide) to F3.0 (Tele) f=4.1mm to 94.3mm (f=29 mm to 667mm (35mm equivalent))
Filter diameter		72mm
Shutter speed		1/6 ~ 1/10000, EEI
Gain		(-6, -3: Extended mode only), 0, 3, 6, 9, 12, 15, 18,21,24 dB, Lolux (30,36 dB), AGC
ND filter		none, 1/4, 1/16, 1/64
LCD display		3.5-inch 920 k pixels, 16:9
Viewfinder		0.45-inch 1.22 M pixel, 16:9
VIDEO/AUDIO RECORDING		
Recording media		2x SDHC/SDXC memory card (HD: Class 6/10 AVCHD/SD/Web: Class4)
Video recording	Video codec	MPEG-4 AVC/H.264 (HD/SD), MPEG-2 Long GOP VBR (HD) MPEG-2 Long GOP CBR (HD), AVCHD (HD/SD)
	File format	MOV, MP4, MTS (AVCHD)
	HD (MPEG-2 Long GOP VBR)	NTSC setting: HQ mode:1920 x 1080/59.94i, 29.97p, 23.98p, 1440 x 1080/59.94i
		1280 x 720/59.94p, 29.97p, 23.98p (Max 35Mbps)
		PAL setting: HQ mode: 1920 x 1080/50i, 25p, 1440x1080/50i
		1280 x 720/50i, 25p (Max 35Mbps)
	HD (MPEG-2 Long GOP CBR)	NTSC setting: SP mode: 1440x1080/59.94i, 1280x720/59.94p (18.3Mbps)
		PAL setting: SP mode: 1440x1080/50i, 1280x720/50p (18.3Mbps)
	HD (H.264)	NTSC setting: XHQ mode: 1920x1080/59.94p, 59.94i, 29.97p, 23.98p (Max 50Mbps)
		1920x1080/59.94i, 29.97p, 23.98p (Max 35Mbps)
		PAL setting: XHQ mode: 1920 x 1080/50p, 50i, 25p (Max 50Mbps)
		1920 x 1080/50i, 25p (Max 35Mbps)
	AVCHD	NTSC setting: Progressive mode (Max 28Mbps): 1920 x 1080/59.94p
		HQ mode (Max 24Mbps): 1920 x 1080/59.94i, SP mode (Max 18Mbps): 1920 x1080/59.94i
		LP mode (9Mbps): 1440 x 1080/59.94i, EP mode (5Mbps): 1440 x1080/59.94i
		PAL setting: Progressive mode (Max 28Mbps): 1920 x 1080/50p
		HQ mode (Max 24Mbps): 1920 x 1080/50i, SP mode (Max 18Mbps): 1920 x1080/50i
		LP mode (9Mbps): 1440 x 1080/50i, EP mode (5Mbps): 1440 x1080/50i
	SD (H.264)	NTSC setting: 720 x 480/59.94i (GY-HM620U)
		PAL setting: 720 x 576/50i (GY-HM620E)
Audio recording		LPCM 2ch, 48kHz/16-bit (MOV/MP4), Dolby Digital, 2ch (AVCHD)
INTERFACE		
Video output		AV output (ø3.5mm mini jack x1)
		SDI output (BNC x1)
		HDMI output x1
Audio input		XLR x2 (MIC,+48V/LINE), ø3.5mm mini jack x1
Audio output		AV output (ø3.5mm mini jack x1)
Headphone		ø3.5mm mini jack x1
Remote		ø2.5mm mini jack x1
Time code link input/output		RCA x1
USB		DEVICE x1 (Mass storage)
PROVIDED ACCESSORIES		
Battery (SSL-JVC50) x1, AC Adapter x1		

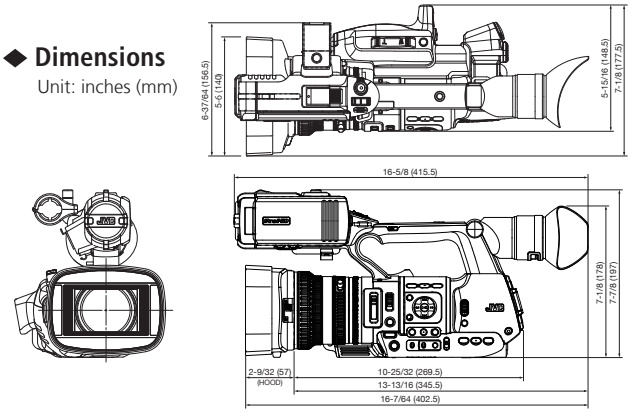
◆ SDHC Class 4/6/10, SDXC recording time (approx.)

	MOV/MP4			MTS					MOV		
	MPEG-2/HD			AVCHD					H.264/HD		H.264/SD
	HQ	SP		HQ Progressive	HQ	SP	LP	EP	XHQ	UHQ	SD
	720p/1080i	1080i	720p	1080p	1080i				1080p/i		480i
4GB	12m	17m	22m	16m	19m	25m	46m	1h 22m	9m	12m	47m
8GB	25m	35m	45m	33m	38m	50m	1h 35m	2h 48m	18m	25m	1h 35m
16GB	50m	1h 10m	1h 30m	1h 7m	1h 18m	1h 40m	3h 10m	5h 36m	36m	50m	3h 10m
32GB	1h 40m	2h 20m	3h	2h 15m	2h 36m	3h 20m	6h 20m	11h 12m	1h 12m	1h 40m	6h 20m
64GB	3h 20m	4h 40m	6h	4h 30m	5h 12m	6h 40m	12h 40m	22h 24m	2h 25m	3h 20m	12h 40m
128GB	6h 40m	9h 20m	12h	9h	10h 32m	13h 20m	25h 20m	44h 48m	4h 50m	6h 40m	25h 20m

Notes: ● Recording times are estimate. ● Recommended SDHC/SDXC memory card brands: Panasonic, Toshiba, and SanDisk
● SDHC Class 10 enabled only in XHQ mode; SDHC Class 4 enabled in AVCHD mode.

◆ Dimensions

Unit: inches (mm)



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