

# VIXIA HF G21

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HD Camcorder

# Specifications

## VIXIA HF G21

◆ – Values given are approximate figures.

### System

- Recording System

Movies: AVCHD<sup>1</sup> Video: MPEG-4 AVC/H.264;  
 Audio: Linear PCM, 16 bits, 48 kHz, 2ch<sup>2</sup>  
 Dolby Digital 2ch; Dolby Digital 5.1ch<sup>3</sup>  
 MP4 Video: MPEG-4 AVC/H.264  
 Audio: MPEG-2 AAC-LC (2ch)

Photos: DCF (Design rule for Camera File system), compatible with Exif<sup>4</sup> Ver. 2.3  
 Image type: JPEG

<sup>1</sup> Compatible with AVCHD ver. 2.0 specifications.

<sup>2</sup> Linear PCM is available only when the recording mode is 28 Mbps LPCM or 24 Mbps LPCM.

<sup>3</sup> Dolby Digital 5.1ch is available only when using the optional SM-V1 Surround Microphone.

<sup>4</sup> This camcorder supports Exif 2.3 (also called "Exif Print"). Exif Print is a standard for enhancing the communication between camcorders and printers. By connecting to an Exif Print-compliant printer, the camcorder's image data at the time of shooting is used and optimized, yielding extremely high quality prints.

- Recording Media

SD, SDHC (SD High Capacity) or SDXC (SD eXtended Capacity) memory card (not included);  
 two memory card slots

- Image Sensor

1/2.84-inch CMOS, 3,090,000 pixels◆  
 Effective pixels: 2,910,000 pixels◆

- LCD Touch Screen: 3.0 in., wide, TFT color, 460,000 dots◆, 100% coverage, capacitive touch screen operation

- Viewfinder: 0.24 in., wide, color, equivalent to 1,560,000 dots◆, 100% coverage

- Microphone: Stereo electret condenser microphone, attenuator (20 dB)

- Lens

f=3.67-73.4 mm, F/1.8-2.8, 20x optical zoom, 8-bladed circular aperture  
 35 mm equivalent: 26.8 – 576 mm◆  
 28.8 – 576 mm◆ (when Dynamic IS is activated)

- Lens Configuration: 12 elements in 10 groups (double-sided aspheric element)

- AF System

Autofocus (TTL + external distance sensor when set to [Instant AF] or [Medium AF]) or Manual focus

- Filter Diameter: 58 mm

- Minimum Focusing Distance

60 cm (2 ft.); 1 cm (0.39 in.) at full wide angle

- White Balance

Auto white balance, Custom white balance (2 settings), User-defined color temperature or Preset white balance settings: Daylight, Shade, Cloudy, Fluorescent, Fluorescent H, Tungsten

- **Minimum Illumination**  
0.1 lx ([Low Light] recording program, Shutter speed at 1/2)  
1.2 lx ([Programmed AE] recording program, Auto slow shutter [On], Shutter speed at 1/30)
- **Recommended Illumination:** More than 100 lx
- **Image Stabilization:** Optical-Shift Image Stabilizer
- **Size of Video Recordings**  
AVCHD movies:  
28 Mbps LPCM (59.94P), 28 Mbps (59.94P), 24 Mbps LPCM, 24 Mbps, 17 Mbps: 1920 x 1080 pixels; 5 Mbps: 1440 x 1080 pixels  
MP4 movies:  
35 Mbps (59.94P), 24 Mbps, 17 Mbps: 1920 x 1080 pixels; 8 Mbps (59.94P), 4 Mbps: 1280 x 720 pixels; 3 Mbps: 640 x 360 pixels
- **Size of Photos:** 1920 x 1080 pixels  
1280 x 720 pixels (when recording MP4 movies at 8 or 4 Mbps)  
640 x 360 pixels (when recording MP4 movies at 3 Mbps)  
1920 x 1080 pixels (photos captured from movies)

## Terminals

- **HDMI OUT Terminal:** HDMI mini connector; output only
- **USB Terminal:** mini-B receptacle, Hi-Speed USB; output only
- **AV OUT Terminal**  
Ø 3.5 mm 4-pole minijack; output only  
Video: 1 Vp-p / 75 Ω unbalanced  
Audio: -10 dBV (47 kΩ load) / 3 kΩ or less
- **MIC Terminal**  
Ø 3.5 mm stereo minijack (unbalanced)  
Sensitivity:  
For microphone input: -65 dBV (auto volume, full scale -12 dB) / 5 kΩ or more  
For line input: -30 dBV (auto volume, full scale -12 dB) / 5 kΩ or more  
Microphone attenuator: 20 dB
- **⌚ (headphone) Terminal**  
Ø 3.5 mm stereo minijack (unbalanced)  
-29 dBV (16 Ω load, Max volume) / 100 Ω
- **REMOTE Terminal:** Ø 2.5 mm stereo sub-mini jack; input only

## Power/Others

- **Power supply (rated)**  
7.4 V DC (battery pack), 8.4 V DC (compact power adapter)
- **Power consumption**◆:  
4.3 W (17 Mbps, AF on, LCD normal brightness)
- **Operating temperature**◆: 0 – 40 °C (32 – 104 °F)
- **Dimensions**◆ [W x H x D] (excluding the grip belt)  
Camcorder only: 109 x 84 x 182 mm (4.3 x 3.3 x 7.2 in.)  
Camcorder with the lens hood attached: 115 x 84 x 231 mm (4.5 x 3.3 x 9.1 in.)

- **Weight**◆  
Camcorder only: 745 g (1.6 lb.)  
Camcorder with lens hood, BP-820 Battery Pack, memory card: 880 g (1.9 lb.)

### CA-570 Compact Power Adapter

- **Power supply:** 100 – 240 V AC, 50/60 Hz
- **Rated output / consumption:** 8.4 V DC, 1.5 A / 29 VA (100 V) – 39 VA (240 V)
- **Operating temperature**◆: 0 – 40 °C (32 – 104 °F)
- **Dimensions**◆: 52 x 29 x 90 mm (2.1 x 1.1 x 3.5 in.)
- **Weight**◆: 135 g (4.8 oz.)

### BP-820 Battery Pack

- **Battery type**  
Rechargeable lithium ion battery, compatible with Intelligent System
- **Rated voltage:** 7.4 V DC
- **Operating temperature**◆: 0 – 40 °C (32 – 104 °F)
- **Battery capacity:** 1780 mAh (typical); 13 Wh / 1700 mAh (minimum)
- **Dimensions**◆: 30.7 x 39.4 x 40.2 mm (1.2 x 1.6 x 1.6 in.)
- **Weight**◆: 85 g (3.0 oz.)

## Reference Tables

### Approximate recording times

The camcorder uses a variable bit rate (VBR) to encode video so the actual recording times will vary depending on the subject.

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For AVCHD movies:

Recording mode → Memory card ↓	28 Mbps LPCM (59.94P) and 28 Mbps (59.94P)	24 Mbps LPCM and 24 Mbps	17 Mbps	5 Mbps
8 GB Memory card	35 min.	40 min.	1 hr.	3 hr.
16 GB Memory card	1 hr. 15 min.	1 hr. 25 min.	2 hr. 5 min.	6 hr. 5 min.
32 GB Memory card	2 hr. 30 min.	2 hr. 55 min.	4 hr. 10 min.	12 hr. 15 min.*
64 GB Memory card	5 hr. 5 min.	5 hr. 55 min.	8 hr. 20 min.	24 hr. 30 min.*
128 GB Memory card	10 hr. 10 min.	11 hr. 55 min.	16 hr. 45 min.*	49 hr.*

For MP4 movies:

Recording mode → Memory card ↓	35 Mbps (59.94P)	24 Mbps	17 Mbps	8 Mbps (59.94P)	4 Mbps	3 Mbps
8 GB Memory card	30 min.	40 min.	1 hr.	2 hr. 10 min.	4 hr. 20 min.	5 hr. 40 min.
16 GB Memory card	1 hr.	1 hr. 25 min.	2 hr. 5 min.	4 hr. 20 min.	8 hr. 40 min.	11 hr. 25 min.
32 GB Memory card	2 hr.	2 hr. 55 min.	4 hr. 10 min.	8 hr. 40 min.	17 hr. 20 min.*	22 hr. 55 min.*
64 GB Memory card	4 hr.	5 hr. 55 min.	8 hr. 20 min.	17 hr. 20 min.*	34 hr. 45 min.*	45 hr. 55 min.*
128 GB Memory card	8 hr.	11 hr. 55 min.	16 hr. 45 min.*	34 hr. 45 min.*	69 hr. 30 min.*	91 hr. 55 min.*

\* A single scene can be recorded continuously for 12 hours; at that point, the camcorder will stop.

### Approximate number of photos

The photo size and number of photos that can be saved on a 1 GB memory card are summarized in the following table. However, the actual number of photos that can be recorded will vary depending on the subject and shooting conditions.

Movie Format	Recording mode	Photo size	Number of photos
AVCHD	Any	1920x1080	660
MP4	35 Mbps, 24 Mbps, 17 Mbps	1920x1080	660
	8 Mbps, 4 Mbps	1280x720	1,490
	3 Mbps	640x360	5,800

## Charging, Recording and Playback Times

The charging times given in the following table are approximate and vary according to charging conditions and initial charge of the battery pack.

Battery pack→	BP-820	BP-828
Charging conditions↓		
Using the camcorder	275 min.	405 min.
Using the CG-800 Battery Charger	190 min.	260 min.

Recording and playback times given in the following tables are approximate and vary according to recording mode and charging, recording or playback conditions. The times are based on using the LCD screen. The effective usage time of the battery pack may decrease when recording in cold surroundings, when using the brighter screen settings, etc.

### Recording AVCHD movies

Battery pack	Recording mode	Recording (maximum)	Recording (typical)*	Playback
BP-820	28 Mbps LPCM (59.94P) / 28 Mbps (59.94P)	155 min.	95 min.	270 min.
	17 Mbps	170 min.	105 min.	285 min.
	5 Mbps	175 min.	100 min.	295 min.
BP-828	28 Mbps LPCM (59.94P) / 28 Mbps (59.94P)	230 min.	145 min.	405 min.
	17 Mbps	250 min.	160 min.	425 min.
	5 Mbps	260 min.	160 min.	440 min.

### Recording MP4 movies

Battery pack	Recording mode	Recording (maximum)	Recording (typical)*	Playback
BP-820	35 Mbps (59.94P)	155 min.	95 min.	270 min.
	17 Mbps	185 min.	115 min.	290 min.
	3 Mbps	190 min.	115 min.	310 min.
BP-828	35 Mbps (59.94P)	230 min.	140 min.	400 min.
	17 Mbps	275 min.	170 min.	435 min.
	3 Mbps	295 min.	185 min.	465 min.

\* Approximate times for recording with repeated operations such as start/stop, zooming, and power on/off.