

# ***XA40***

# ***XA45***

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4K Camcorder

## Specifications

### XA45 / XA40

◆ – Values given are approximate figures.

#### System

- Recording System

Clips: MP4 Video: MPEG-4 AVC/H.264  
 Audio: MPEG-2 LPCM (4ch), MPEG-2 AAC-LC (2ch)  
 Video configuration (resolution, bit rate, frame rate)  
 3840x2160: 150 Mbps (29.97P, 23.98P)  
 1920x1080: 35 Mbps, 17 Mbps (59.94P, 29.97P, 23.98P)  
 1280x720: 8 Mbps (59.94P)  
 Color sampling: YCbCr 4:2:0, 8 bit

Photos: DCF (Design rule for Camera File system), compatible with Exif<sup>1</sup> Ver. 2.3  
 Image type: JPEG

<sup>1</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 (not included)

SD, SDHC (SD High Capacity) or SDXC (SD eXtended Capacity) card (2 slots)

- Image Sensor

1/2.3-inch CMOS, 21,140,000 pixels◆  
 Effective pixels: 8,290,000 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

When the resolution is 3840x2160 (35 mm equivalent):

30.6 – 612 mm◆ (when Dynamic IS is activated)

29.3 – 601 mm◆ (for other image stabilization settings)

For other resolutions (35 mm equivalent):

32.0 – 640 mm◆ (when Dynamic IS is activated)

30.5 – 627 mm◆ (for other image stabilization settings)

- Lens Configuration: 12 elements in 10 groups (two aspheric elements)

- 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, Tungsten

- **Minimum Illumination**

0.3 lx ♦ ([Low Light] shooting mode, 1/2 shutter speed)

5.0 lx ♦ ([Programmed AE] shooting mode, 59.94P frame rate, 1/30 shutter speed, auto slow shutter on)

- **Recommended Illumination:** More than 100 lx

- **Image Stabilization:** Optical-shift image stabilizer + digital compensation

- **Size of Photos:** 3840x2160 (3,080 KB), 1920x1080 (880 KB), 1280x720 (420 KB)

The number in parentheses indicates the file size.

## Terminals

- **HDMI OUT Terminal:** HDMI mini connector; output only

- **USB Terminal:** mini-B receptacle, Hi-Speed USB; output only

- **MIC Terminal**

∅ 3.5 mm stereo minijack (unbalanced); power can be supplied to a plug-in power microphone

Sensitivity:

–65 dBV (auto volume, full scale –12 dB) / 1.5 kΩ or more

Microphone attenuator: 20 dB

Supplied power: 2.4 V (bias resistance 2.2 kΩ)

- **INPUT Terminals**

INPUT jack (pin1: shield, pin2: hot, pin3: cold), 2 sets (balanced)

Sensitivity:

For microphone input: –60 dBu (manual volume center, full scale –18 dB) / 600 Ω

For line input: 4 dBu (manual volume center, full scale –18 dB) / 10 kΩ

Microphone attenuator: 20 dB

- **⌚ (headphone) Terminal**

∅ 3.5 mm stereo minijack (unbalanced)

–24 dBV (32 Ω load, max volume) / 100 Ω

- **REMOTE Terminal:** ∅ 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 ♦:**

**XA45** 4.4 W **XA40** 4.2 W (150 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.)

Camcorder with the lens hood and handle unit attached: 131 x 180 x 231 mm (5.2 x 7.1 x 9.1 in.)

- Weight♦

**XA45**

Camcorder only: 740 g (1.6 lb.)

Camcorder with lens hood, BP-820 Battery Pack, one SD card, handle unit: 1,130 g (2.5 lb.)

**XA40**

Camcorder only: 730 g (1.6 lb.)

Camcorder with lens hood, BP-820 Battery Pack, one SD card, handle unit: 1,120 g (2.5 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. The following table shows the approximate recording times for a single recording operation until the indicated SD card becomes full.

MP4 audio format	Bit rate	SD card				
		8 GB	16 GB	32 GB	64 GB	128 GB
<b>[4CH]</b> LPCM 16bit 4CH]	150 Mbps	5 min.	10 min.	25 min.	55 min.	110 min.
	35 Mbps	25 min.	50 min.	110 min.	220 min.	445 min.
	17 Mbps	45 min.	100 min.	205 min.	420 min.	845 min.
<b>[2CH]</b> AAC 16bit 2CH]	150 Mbps	5 min.	10 min.	25 min.	55 min.	110 min.
	35 Mbps	25 min.	55 min.	115 min.	240 min.	485 min.
	17 Mbps	55 min.	120 min.	245 min.	495 min.	995 min.
	8 Mbps	120 min.	255 min.	520 min.	1,055 min.	2,120 min.

### 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	210 min.	300 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 video configuration 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.

#### **XA45**

Battery pack	Resolution/Bit rate	Recording (maximum)	Recording (typical)*	Playback
BP-820	3840x2160 (150 Mbps)	165 min.	90 min.	260 min.
	1920x1080 (35 Mbps)	190 min.	105 min.	270 min.
	1280x720 (8 Mbps)	165 min.	95 min.	280 min.
BP-828	3840x2160 (150 Mbps)	250 min.	140 min.	385 min.
	1920x1080 (35 Mbps)	290 min.	160 min.	400 min.
	1280x720 (8 Mbps)	260 min.	140 min.	415 min.

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

**XA40**

Battery pack	Resolution/Bit rate	Recording (maximum)	Recording (typical)*	Playback
BP-820	3840x2160 (150 Mbps)	170 min.	95 min.	280 min.
	1920x1080 (35 Mbps)	200 min.	110 min.	290 min.
	1280x720 (8 Mbps)	175 min.	100 min.	300 min.
BP-828	3840x2160 (150 Mbps)	265 min.	145 min.	415 min.
	1920x1080 (35 Mbps)	305 min.	165 min.	435 min.
	1280x720 (8 Mbps)	270 min.	150 min.	460 min.

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