

XA50

XA55

4K Camcorder

Specifications

XA55 / XA50

◆ — Values given are approximate figures.

System

- Recording System

Clips:

MP4

Video compression: MPEG-4 AVC/H.264

Audio format: MPEG-2 AAC-LC, 16 bit, 48 kHz, 2 channels

Linear PCM, 16 bit, 48 kHz, 4 channels

File format: MP4

XF-AVC

Video compression: MPEG-4 AVC/H.264

Audio format: Linear PCM, 24 bit, 48 kHz, 4 channels

File format: MXF (XF-AVC)

Photos:

DCF (Design rule for Camera File system), compatible with Exif Ver. 2.3, JPEG compression

- Video Configuration (recording/playback)

MP4

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

XF-AVC

3840x2160: 160 Mbps / 29.97P, 23.98P

1920x1080: 45 Mbps / 59.94P, 59.94i, 29.97P, 23.98P

Color sampling: YCbCr 4:2:0, 8 bit

- Recording Media (not included)

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

- Image Sensor

1.0-inch single-plate CMOS sensor

Effective pixels: 8,290,000 pixels◆ (3840x2160)

- LCD Touch Screen

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

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

- Microphone: Stereo electret condenser microphone

- Lens

f=8.3 – 124.5 mm, F/2.8 – 4.5, 15x optical zoom, 9-blade iris diaphragm

35mm equivalent focal length: 28.3 - 424.6 mm◆ (Dynamic IS)

25.5 - 382.5 mm◆ (other IS modes)

- Lens Configuration

18 elements in 14 groups (2 aspheric elements)

- Filter Diameter: 58 mm

- Focus

Manual focus, autofocus (AF-boosted MF, continuous AF)

AF type: Dual Pixel CMOS AF, contrast-detection AF

Minimum focusing distance: 60 cm (2 ft.) throughout the zoom range; 1 cm (0.39 in.) at full wide angle

- **White Balance**

Automatic white balance (AWB); 2 preset settings (daylight, tungsten lamp); color temperature setting; custom white balance (2 sets)

- **Minimum Illumination**◆

0.1 lx ([**L** Low Light] shooting mode, shutter speed 1/2)

1.7 lx ([**P** Programmed AE] shooting mode, 59.94P, shutter speed 1/30, auto slow shutter [On])

- **Image Stabilization**

Optical-shift image stabilizer + digital compensation (Standard IS, Dynamic IS, Powered IS)

- **Size of Photos**

3840x2160 (3,080 KB), 1920x1080 (880 KB), 1280x720 (420 KB)

The number in parentheses indicates the approximate file size (for reference only).

Terminals

- ****XA55** SDI OUT Terminal**

BNC jack, output only, 0.8 Vp-p / 75 Ω , unbalanced

3G-SDI: SMPTE 424, SMPTE 425, SMPTE ST 299-2

HD-SDI: SMPTE 292, SMPTE ST 299-1

Embedded audio, time code (VITC/LTC)

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

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

- **MIC Terminal**

Ø 3.5 mm stereo mini-jack (unbalanced), plug-in power supply available

Sensitivity: -65 dBV (auto volume, full scale -12 dB) / 1.5 k Ω or more

Microphone attenuator: 20 dB

Plug-in power supply: 2.4 V DC (bias resistance 2.2 k Ω)

- **INPUT Terminals (INPUT 1 and INPUT 2 on the handle unit)**

XLR 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 k Ω

Microphone attenuator: 20 dB

- **⌀ (headphone) Terminal**

Ø 3.5 mm stereo mini-jack (unbalanced), -17 dBV (32 Ω load, Max volume) / 50 Ω or less

- **REMOTE Terminal:** Ø 2.5 mm stereo sub-mini jack, input only

Power/Others

- **Power Supply:** 7.4 V DC (battery pack), 8.4 V DC (DC IN)

- **Power Consumption**◆

3840x2160 recording at 29.97P, using autofocus, LCD screen at normal brightness

XA55 5.2 W, **XA50** 5.1 W (MP4 clips: 150 Mbps, XF-AVC clips: 160 Mbps)

- **Operating Temperature**◆: 0 – 40 °C (32 – 104 °F)

- **Dimensions**◆ [W x H x D] (excluding the grip belt)

Camcorder body only: 109 x 91 x 214 mm (4.3 x 3.6 x 8.4 in.)

Camcorder body with lens hood: 125 x 91 x 265 mm (4.9 x 3.6 x 10.4 in.)

Camcorder body with lens hood, handle unit: 140 x 216 x 265 mm (5.5 x 8.5 x 10.4 in.)

- **Weight**◆

Camcorder body (including grip belt): **XA55** 970 g (2.1 lb.), **XA50** 960 g (2.1 lb.)

Typical working configuration*: **XA55** 1,445 g (3.2 lb.), **XA50** 1,435 g (3.2 lb.)

* Camcorder with grip belt, lens hood, handle unit with microphone holder, BP-820 battery pack and one SD card.

CA-570 Compact Power Adapter

- **Power Supply:** 100 – 240 V AC, 50/60 Hz
- **Nominal 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
- **Nominal Voltage:** 7.4 V DC
- **Nominal Capacity:** 1,780 mAh
- **Rated Capacity (minimum):** 13 Wh / 1,700 mAh
- **Operating Temperature**◆: 0 – 40 °C (32 – 104 °F)
- **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 Time on an SD Card

Approximate times, for reference only, based on a continuous recording operation until the card is full.

MP4 clips

MP4 audio format	Resolution (bit rate)	SD card				
		8 GB	16 GB	32 GB	64 GB	128 GB
[2CH] AAC 16bit 2CH]	3840x2160 (150 Mbps)	5 min.	10 min.	25 min.	55 min.	110 min.
	1920x1080 (35 Mbps)	25 min.	55 min.	115 min.	240 min.	485 min.
	1920x1080 (17 Mbps)	55 min.	120 min.	245 min.	495 min.	995 min.
	1280x720 (8 Mbps)	120 min.	255 min.	520 min.	1,055 min.	2,120 min.
[4CH] LPCM 16bit 4CH]	3840x2160 (150 Mbps)	5 min.	10 min.	25 min.	55 min.	110 min.
	1920x1080 (35 Mbps)	25 min.	50 min.	110 min.	220 min.	445 min.
	1920x1080 (17 Mbps)	45 min.	100 min.	205 min.	420 min.	845 min.

XF-AVC clips

Resolution (bit rate)	SD card				
	8 GB	16 GB	32 GB	64 GB	128 GB
3840x2160 (160 Mbps)	5 min.	10 min.	25 min.	50 min.	105 min.
1920x1080 (45 Mbps)	20 min.	45 min.	90 min.	185 min.	375 min.

Charging Times

Charging times are approximate and vary according to charging conditions, ambient temperature and initial charge of the battery pack.

Battery pack→	BP-820	BP-828
Charging conditions↓		
Using the camcorder and supplied CA-570 compact power adapter	210 min.	300 min.
Using the CG-800 Battery Charger	190 min.	260 min.

Approximate Usage Times with a Fully Charged Battery Pack

The usage times in the following tables are approximate and were measured under the following conditions. Actual times may vary.

- Only the LCD screen was used.
- “Typical recording” times measure recording times with repeated operations such as start/stop recording, zooming and turning the camcorder on/off.
- The effective usage time of the battery pack may decrease when using a bright screen setting, when recording in cold surroundings, etc.

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Video configuration		Usage conditions	Battery pack	
Resolution (bit rate)	Frame rate		BP-820 (supplied)	BP-828 (optional)
MP4 clips				
3840x2160 (150 Mbps)	29.97P	Recording (maximum)	135 min.	210 min.
		Recording (typical)	75 min.	115 min.
		Playback	180 min.	275 min.
1920x1080 (35 Mbps)		Recording (maximum)	155 min.	240 min.
		Recording (typical)	85 min.	135 min.
		Playback	215 min.	325 min.
1920x1080 (17 Mbps)		Recording (maximum)	160 min.	245 min.
		Recording (typical)	90 min.	135 min.
		Playback	210 min.	315 min.
1280x720 (8 Mbps)	59.94P	Recording (maximum)	135 min.	210 min.
		Recording (typical)	75 min.	115 min.
		Playback	210 min.	315 min.
XF-AVC clips				
3840x2160 (160 Mbps)	29.97P	Recording (maximum)	135 min.	210 min.
		Recording (typical)	75 min.	115 min.
		Playback	180 min.	275 min.
1920x1080 (45 Mbps)		Recording (maximum)	155 min.	240 min.
		Recording (typical)	85 min.	135 min.
		Playback	200 min.	305 min.

XA50

Video configuration		Usage conditions	Battery pack		
Resolution (bit rate)	Frame rate		BP-820 (supplied)	BP-828 (optional)	
MP4 clips					
3840x2160 (150 Mbps)	29.97P	Recording (maximum)	140 min.	215 min.	
		Recording (typical)	75 min.	120 min.	
		Playback	190 min.	290 min.	
Recording (maximum)		165 min.	250 min.		
Recording (typical)		90 min.	140 min.		
Playback		230 min.	350 min.		
1920x1080 (35 Mbps)		Recording (maximum)	165 min.	250 min.	
			Recording (typical)	90 min.	140 min.
			Playback	230 min.	350 min.
1920x1080 (17 Mbps)	Recording (maximum)	165 min.	250 min.		
		Recording (typical)	90 min.	140 min.	
		Playback	215 min.	325 min.	
1280x720 (8 Mbps)	59.94P	Recording (maximum)	140 min.	215 min.	
		Recording (typical)	75 min.	120 min.	
		Playback	215 min.	325 min.	
XF-AVC clips					
3840x2160 (160 Mbps)	29.97P	Recording (maximum)	140 min.	215 min.	
		Recording (typical)	75 min.	120 min.	
		Playback	185 min.	280 min.	
Recording (maximum)		165 min.	250 min.		
Recording (typical)		90 min.	140 min.		
Playback		215 min.	325 min.		
1920x1080 (45 Mbps)	Recording (maximum)	165 min.	250 min.		
		Recording (typical)	90 min.	140 min.	
		Playback	215 min.	325 min.	