

# Panasonic

# AJ-CX4000GJ

Memory Card Camera Recorder

\* The lens, mic, viewfinder, wireless receiver and battery pack shown in the photo are optional accessories.

Featuring Outstanding 4K/HDR Picture Quality  
and Advanced Networking Functions,  
The Shoulder Camera-Recorder for Production,  
Broadcasting, Distribution

CREATIVITY  $\times$  CONNECTIVITY



Worldwide  
Olympic Partner



Worldwide  
Paralympic Partner



# AVC ULTRA



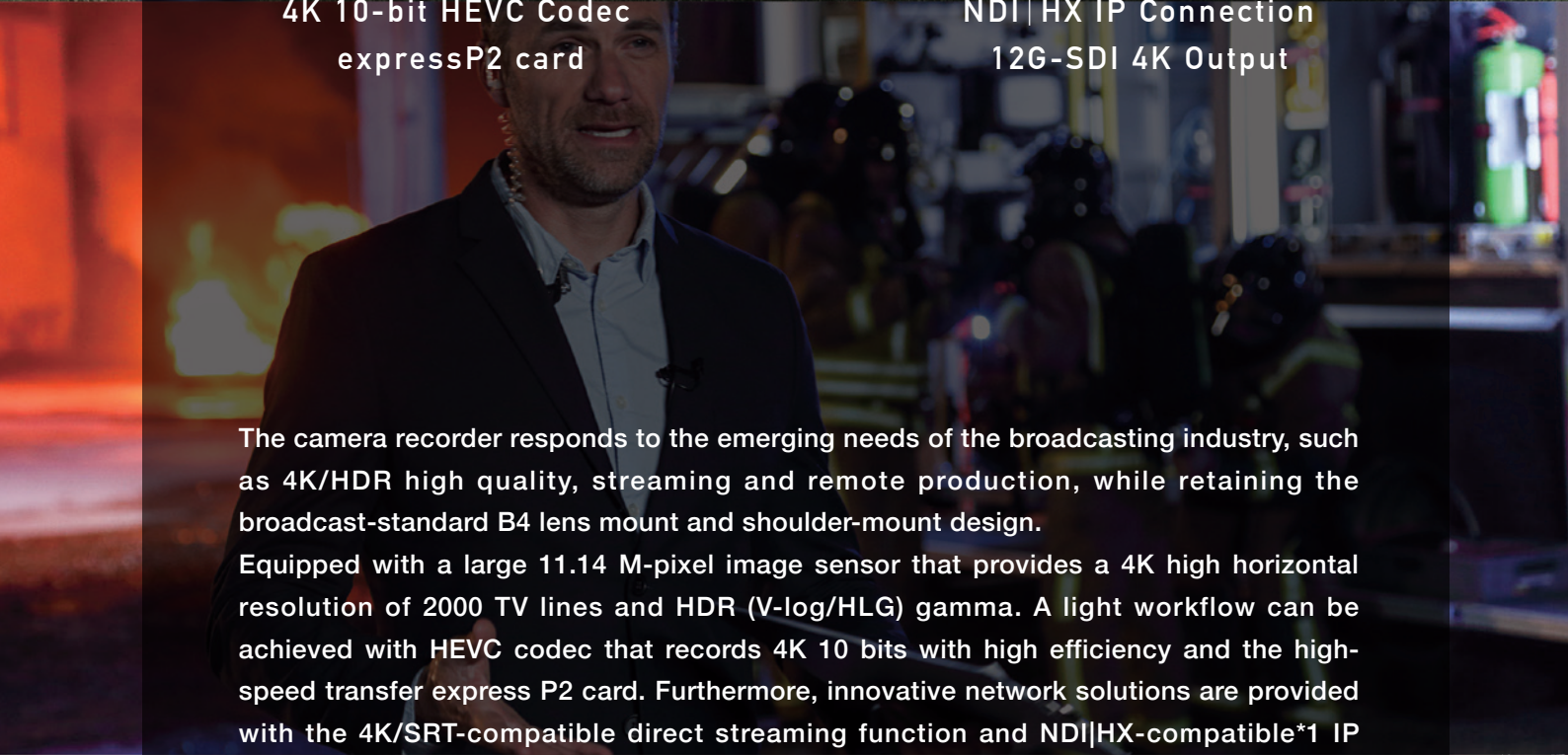


A CX SERIES 4K CAMCORDER DELIVER NEXT-GENERATION CREATIVITY AND CONNECTIVITY

CREATIVITY  CONNECTIVITY

4K HDR Picture Quality  
4K 10-bit HEVC Codec  
expressP2 card

Direct Streaming  
NDI|HX IP Connection  
12G-SDI 4K Output



The camera recorder responds to the emerging needs of the broadcasting industry, such as 4K/HDR high quality, streaming and remote production, while retaining the broadcast-standard B4 lens mount and shoulder-mount design.

Equipped with a large 11.14 M-pixel image sensor that provides a 4K high horizontal resolution of 2000 TV lines and HDR (V-log/HLG) gamma. A light workflow can be achieved with HEVC codec that records 4K 10 bits with high efficiency and the high-speed transfer express P2 card. Furthermore, innovative network solutions are provided with the 4K/SRT-compatible direct streaming function and NDI|HX-compatible\*1 IP connection function.

Also compatible with AVC-ULTRA Codec\*2 recording of the P2HD Series, and smoothly links to current HD broadcasting systems. It provides advanced support in various applications such as broadcasting or recording sports events and in the production of documentaries.

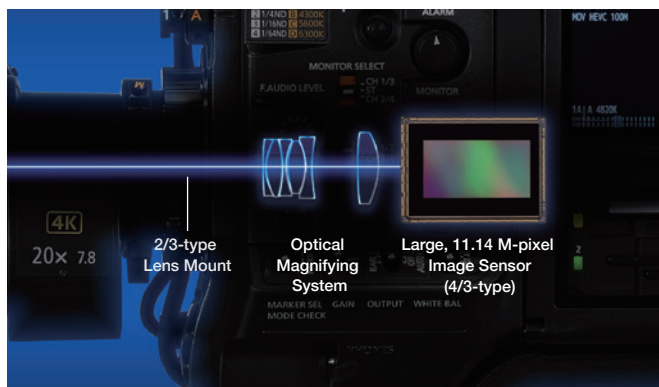
\*1: NDI|HX, a technology of NewTek, Inc. To use this function, an activation keycode from NewTek is required.

\*2: Use an expressP2 card or a microP2 card for recording in P2 format. Conventional P2 cards can not be used.



# High-Quality 4K & HDR Shooting with 2000 TV Lines and a Wealth of Camera Functions

## Large Sensor and Optical Magnifying System Achieve High-Quality 4K/HDR Shooting



The AJ-CX4000GJ has the Panasonic original optical magnifying system, same as the AK-UC4000 4K studio camera having good reputation for its image quality. Panasonic's unique magnified optical lens enables a large sensor to be mounted on a 2/3-type lens mount camera. AJ-CX4000GJ chooses the image sensor, which secures a pixel size of 4.3 microns to obtain a wide dynamic range and has Dual Native ISO technology to achieve low noise even in dim lighting. This system achieves the following operability and high image quality of the 2/3-type lens and 4K/HDR shooting.

- 2/3-type lens mount secures a deep depth of field.
- 11.14 M-pixel oversampling obtains a horizontal resolution of 2,000 TV lines or more.
- 4K achieves high sensitivity F10 (59.94 Hz)/F11 (50 Hz) in High Sens mode.
- HDR shooting is supported with HLG (Hybrid Log Gamma) .
- A newly developed color filter achieves color reproduction that approaches the 3-chip type.

## 0.005 lx of Minimum Illumination, High-Sensitivity DS Gain

High sensitivity is achieved with DS gain. Combined with master gain, this enables a maximum +76 dB,\* for ultrahigh sensitive recording at minimum subject illumination of 0.005 lx.

\* With super gain set at F1.4, +42 dB and digital super gain (cumulative mode) at +34 dB.

## HLG\*<sup>1</sup>/V-Log\*<sup>2</sup> Gamma Compatible with HDR

Equipped with V-Log Gamma\*<sup>2</sup>, which has been inherited from Cinema VariCam, and HLG (Hybrid Log Gamma)\*<sup>1</sup> that allows you to record HDR (High Dynamic Range) images compatible with BT.2000 and BT.2020. It also features the following assist functions.

- **HDR/SDR (V-Log/V-709) parallel output:** Equipped with two SDI outputs, and can simultaneously output HDR (HLG) images and SDR images (or V-Log and V-709\*<sup>2</sup>).
- **VF/LCD HDR display switch:** It is possible to switch the displays of HDR/SDR (or V-Log/V-709\*<sup>2</sup>) while shooting by assigning it to the USER button.
- **dB/ISO display switch:** It is possible to switch the dB /ISO of the sensitivity display while shooting V-Log. \*<sup>2</sup>
- **Nine mode gamma:** Select from HD/SD/FILMLIKE 1/FILMLIKE 2/FILMLIKE 3/FILM-REC/VIDEO-REC/HLG/V-Log\*<sup>2</sup>.

\*<sup>1</sup>: The HLG specification was developed jointly by Japanese broadcaster NHK and the BBC in the UK. It is defined in ARIB STD-B67 and ITU-R BT.2100.

\*<sup>2</sup>: You may be required to update with the latest firmware.

## High-Definition Touch Panel LCD with an HD720p Display Capability

The standard 3.5-type color LCD with approximately 2.76 M pixels allows for high-definition color monitoring. In addition, the touch panel makes it easy to operate the menu.

## High Picture Quality with Shooting Assist Functions

- **2.4-Type Black-and-White Organic EL Display:** It offers high brightness and clearly shows the status information even in outdoor environment, such as the timecode and audio input level.
- **Two Optical Filters:** ND and CC, have four positions each.
- **Chromatic Aberration Compensation:** The small amount of circumjacent chromatic aberration is compensated.
- **Dynamic Range Stretcher:** Suppresses blocked shadows and blown highlights to achieve a visually wide dynamic range.
- **Advanced FBC:** High-precision flash band compensation.
- **Digital Zoom:** 2x/3x/4x digital zoom boost.
- **Focus Assist:** "Expand", "Peaking" and "Focus Square."
- **Shockless AWB:** A smooth transition occurs when switching white balance. It is also equipped with an auto tracking white function.
- **WFM/Vectorscope:** Simplified display on LCD and VF.
- **High-Brightness Zebra Display:** The zebra pattern can be displayed in white-out areas of the viewfinder image.
- **Y-GET:** Measures brightness at center and displays numerical data.
- **Lens Files:** Stores settings for interchangeable lenses.
- **Setup Files:** It makes color setting easier for multiple cameras.



\* Pictures simulated.

# Advanced System Functions Supporting Live Streaming and IP Connection

## Streaming capabilities with 4K quality and SRT protocol support

4K (24p/25p/30p/50p/60p) high-definition streaming is supported. HD streaming output is possible while recording. The streaming method supports RTMP/RTMPS/RTSP/SRT protocols. SRT protocol enables high-quality streaming. Both of Client/Listener mode and encryption are supported. H.264/H.265 codec and 8/12/25/50/75Mbps bitrate can be selected. Also supports USB tethering using a 5G smartphone. It is compatible with many services such as Facebook and YouTube and allows you to directly broadcast without an external encoder unit. Automatic uploading to a specified server is also supported.

\*Not compatible with NDI|HX connection. During 4K streaming, recording, thumbnail display, and playback cannot be performed at the same time. When using RTMPS, only H.264 codec is available. When using RTMPS or SRT encryption, the bit rate will be less than 25Mbps. The P2 Network Setting Software is convenient for setting up the RTMP, RTMPS and SRT Client functions. SRT streaming does not support 24p video and SD video. See the website, <[https://pro-av.panasonic.net/en/support/connection\\_confirmed/server/usb\\_tethering.html](https://pro-av.panasonic.net/en/support/connection_confirmed/server/usb_tethering.html)> for the smartphone that have been confirmed to be compatible. See the website, <[https://pro-av.panasonic.net/en/support/connection\\_confirmed/live\\_video/](https://pro-av.panasonic.net/en/support/connection_confirmed/live_video/)> for the live video streaming services that have been confirmed to be compatible.



Connection Confirmed Live Video Distribution Services

## Easy IP Connection: NDI|HX Is Enabled When an Optional NDI|HX License Is Purchased from NewTek

A LAN terminal with a lock mechanism is provided. Cable LAN connection enables IP remote control. The AJ-CX4000GJ is also equipped with NDI|HX mode. It allows video transmission and camera control via IP connection, without using an external converter. When connected to a system configured with the AV-HLC100 Live Production Center and NDI|HXcompatible PTZ cameras, the AJ-CX4000GJ realizes end-to-end live video production of live events as well as web distribution.

• NDI|HX, a technology of NewTek, Inc.  
\* Recording, streaming and 4K output are not available when using NDI|HX mode. To use this function, an activation keycode from NewTek is required. Keycodes can be purchased from the following website: [http://new.tk/ndi\\_panasonic](http://new.tk/ndi_panasonic)



## Linked with IoT Cloud Platform

Supports operation linked with Panasonic's IoT Cloud Platform\*. Remote operation such as GPS and video previews, uploading during and after recording are possible from a remote location via the cloud. It also allows integrated management of setup and firmware for multiple cameras. IoT Cloud Platform allows for remote coverage and video production.

\*On presale in Japan.



Media Bridge GUI on the web browser

## Proxy Recording Format

Main Line Recording Format (P2 MXF)			Proxy Format (AVC-Proxy G6)			
Pixels	Frequency	Video Codec	Pixels & Frequency	Video Sampling	Video Codec	Audio
1920 x 1080 *1	59.94/50p	AVC-Intra422	1920×1080_59.94/50p	4:2:0_8 bit	AVC-G6_12 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-Intra100	1920×1080_59.94/50p	4:2:0_8 bit	AVC-G6_12 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-LongG25	1920×1080_59.94/50p	4:2:0_8 bit	AVC-G6_12 Mbps	AAC_2CH_48 kHz_16 bit
	59.94/50i	AVC-Intra200	1920×1080_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-Intra100	1920×1080_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-Intra50	1920×1080_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-LongG50	1920×1080_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit
1280 x 720 *2	59.94/50p	AVC-LongG25	1920×1080_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-Intra200	1280×720_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-Intra100	1280×720_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-Intra50	1280×720_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit
		AVC-LongG50	1280×720_59.94/50p	4:2:0_8 bit	AVC-G6_6 Mbps	AAC_2CH_48 kHz_16 bit

\*1: At AVC-Intra50, the number of pixels for main recording is 1440 × 1080. \*2: At AVC-Intra50, the number of pixels for main recording is 960 × 720.

# Multi-Codec Recording of 4K/10-bit HEVC and P2HD for broadcasting

## HEVC Codec for High-Image-Quality 10-bit 4K/60p Recording at Low Bit Rates

The AJ-CX4000GJ is capable of recording in various formats at different compression rates (see the table below). It can record 4K (UHD) 60p/50p videos in high-image-quality 10-bit on an SD memory card. Using the high-efficiency HEVC codec (H.265, LongGOP, 10-bit, 4:2:0, MOV), free software, such as the VLC Media Player or QuickTime Player, provides smooth playback on a notebook PC or MacBook.\*



The AJ-CX4000GJ records MOV files that are highly compatible and easy to use. This file format supports long file names with up to 20 characters, allowing recorded video clips to be easily managed.

\* Playback may lack smoothness depending on the PC environment, such as storage and memory devices.

## P2 MXF File Formats Supported with Proxy and Shot Mark

The AJ-CX4000GJ supports the MXF P2 file format for broadcasting. Main recording with AVC-Intra or AVC-LongG codec and sub (proxy) recording with AVC-Proxy G6 codec can be recorded simultaneously. Despite the low bit rate of 12 Mbps or 6 Mbps, the proxy data has the same angle of view and resolution as the main recording, enabling highly immediate breaking news. The sub-recording gamma setting can be set to V-709 if the main recording is set to V-log, and to SDR when the main recording is set to SDR, allowing recording with and without grading in parallel. It also supports the Shot Mark function, which enables thumbnail display, playback, and upload of only the marked clips, just like a P2HD camera recorder for broadcasting.

\*Proxy recording cannot be used during MOV/AVC-LongG12 codec recording, streaming, ND|IHX, VFR, interval recording, simulcast recording, background recording and timestamp recording. Shot Mark cannot be used during MOV codec recording, interval recording and when playback is paused. In simultaneous recording mode, the Shot Mark as last clip is not supported.

## Equipped with expressP2 and microP2 Card Slots

The AJ-CX4000GJ is provided with an expressP2 card slot to accept high-reliability broadcast-application storage media. This enables recording of large data as well as high-speed offloading. In addition, there are two microP2/SDXC memory card slots to achieve low running costs. Using two microP2 cards, unlimited relay recording\* is possible. Simultaneous recording enhance recording reliability. Also provided are pre-REC, internal REC and metadata recording functions.



\* For memory card usage conditions, see the "Recording Media" chart. Conventional P2 cards cannot be used.

\* If the Relay recording time reaches 10 hours, shooting will temporarily stop, and then automatically restart a few seconds later. If it is recorded in MOV format, the file will be split every 3 hours and recorded.

## Clip Metadata Functions

Clip metadata (cameraperson, location, date, time, text memory, etc.) is added to the clips. In addition to the camera itself, data settings can be transferred from an SD card, the CX ROP app or the cloud. A list of clip metadata can be displayed on the camcorder's LCD monitor.

## High-Quality 24-bit Four Channel Audio Recording

It supports 24-bit/48 kHz four channel digital audio recording. The audio source for each channel can be selected for each channel, choosing from mic-in, line-in and wireless receiver.

## Recording Format

Recording Format		Pixels	Color Sampling	Bit Depth	Bit Rate	File Format	Audio
MOV	4K	4:2:2 All-Intra 400M	3840 × 2160	4:2:2	10 bit	400 Mbps (VBR)	29.97p, 25p, 23.98p
		4:2:2 Long GOP 150M	3840 × 2160	4:2:2	10 bit	150 Mbps (VBR)	29.97p, 25p, 23.98p
		HEVC Long GOP 200M	3840 × 2160	4:2:0	10 bit	200 Mbps (VBR)	59.94p, 50p
		HEVC Long GOP 150M	3840 × 2160	4:2:0	10 bit	150 Mbps (VBR)	29.97p, 25p, 23.98p
		HEVC Long GOP 100M	3840 × 2160	4:2:0	10 bit	100 Mbps (VBR)	59.94p, 50p
		4:2:0 Long GOP 150M	3840 × 2160	4:2:0	8 bit	150 Mbps (VBR)	59.94p, 50p
	HD	4:2:0 Long GOP 100M	3840 × 2160	4:2:0	8 bit	100 Mbps (VBR)	29.97p, 25p, 23.98p
		4:2:2 All-Intra 200M	1920 × 1080	4:2:2	10 bit	200 Mbps (VBR)	59.94p, 50p
		4:2:2 All-Intra 100M	1920 × 1080	4:2:2	10 bit	100 Mbps (VBR)	29.97p, 25p, 23.98p, 59.94i, 50i
		4:2:2 Long GOP 100M	1920 × 1080	4:2:2	10 bit	100 Mbps (VBR)	59.94p, 50p
P2(MXF)	HD	4:2:2 Long GOP 50M	1920 × 1080	4:2:2	10 bit	50 Mbps (VBR)	29.97p, 25p, 23.98p, 59.94i, 50i
		AVC-Intra200 (OP-Atom)	1920 × 1080	4:2:2	10 bit	200 Mbps (59.94i)	59.94i, 50i
	4K	AVC-Intra100 (OP-Atom)	1280 × 720	4:2:2	10 bit	200 Mbps (59.94p)	59.94p, 50p
		AVC-Intra100 (OP-Atom)	1920 × 1080	4:2:2	10 bit	100 Mbps (59.94i)*	59.94p, 50p, 59.94i, 50i
		AVC-Intra50 (OP-Atom)	1280 × 720	4:2:2	10 bit	100 Mbps (59.94p)	59.94p, 50p
		AVC-Intra50 (OP-Atom)	1440 × 1080	4:2:0	10 bit	50 Mbps (59.94i)	59.94i, 50i
		AVC-Intra50 (OP-Atom)	960 × 720	4:2:0	10 bit	50 Mbps (59.94p)	59.94p, 50p
		AVC-Intra422 (OP1b)	1920 × 1080	4:2:2	10 bit	200 Mbps (59.94p)	59.94p, 50p
		AVC-LongG50 (OP1b)	1920 × 1080	4:2:2	10 bit	50 Mbps (59.94i) (VBR)	59.94i, 50i
		AVC-LongG50 (OP1b)	1280 × 720	4:2:2	10 bit	50 Mbps (59.94p) (VBR)	59.94p, 50p
AVC-LongG25 (OP1b)	1920 × 1080	4:2:2	10 bit	25 Mbps (59.94i)* (VBR)	59.94p, 50p, 59.94i, 50i		
AVC-LongG25 (OP1b)	1280 × 720	4:2:2	10 bit	25 Mbps (VBR)	59.94p, 50p		
AVC-LongG12 (OP1b)	1920 × 1080	4:2:0	8 bit	12 Mbps (59.94i)* (VBR)	59.94p, 50p, 59.94i, 50i		
AVC-LongG12 (OP1b)	1280 × 720	4:2:0	8 bit	12 Mbps (VBR)	59.94p, 50p		

\*The bit rate increases to two times when recorded in 59.94p or 50p.

## Wireless Control from a Tablet or Smartphone

The AJ-CX4000GJ can be controlled remotely and wirelessly using the tablet/smartphone app "CX ROP"<sup>\*1</sup> (downloadable for free from the App Store or Google Play). This app allows you to display camera information and change camera settings. The settings are easy to see and can be changed by tap-and-slide operation. It is also equipped with a wealth of remote functions for output signal selection, USER button setting, REC S/S and many others. What's more, the app can be used to select the camera to control from up to eight cameras in the CX Series (AJ-CX4000GJ and AG-CX350).<sup>\*2</sup> The compatible camera app inside the network will automatically search, so you can connect with easy settings by simply selecting from the list.

\*The Apple App Store and iPad are service marks or trademarks of Apple Inc. registered in the United States and other countries.

\*1: Please see the website <[https://pro-av.panasonic.net/en/software/cx\\_rop/index.html](https://pro-av.panasonic.net/en/software/cx_rop/index.html)> for compatible tablets, smartphones, and operating systems. For connection, wireless module (optional AJ-WM50, AJ-WM50G or recommended third-party Wi-Fi dongle) is required.

\*2: The app does not support simultaneous/synchronous control of multiple cameras. Camera switching takes several seconds.



\* Pictures simulated.



## Compatible with IP Remote Control

Also supports control from the AK-HRP1000GJ/HRP1005GJ\* remote operation panel for studio cameras with an IP (wired LAN) connection. In addition to supporting control such as image quality settings, it also enables integrated operation with a studio camera.

\*The AK-HRP1000GJ may also need to be updated with the latest firmware. Not compatible with all of the control items of the AK-HRP1000GJ/HRP1005GJ. Also, some of the functions will not work.



AK-HRP1000GJ

## 12G-SDI OUT

### Compatible with 4K 10-Bit 4:2:2 Output

The standard 12G-SDI output terminal delivers high-image-quality UHD 60p (50p) 10-bit 4:2:2 output. Also provided are XLR audio input (2 CH) terminals compatible with +48-V phantom power supply as well as HDMI OUT, TC IN/TC OUT, GENLOCK IN, USB3.0 (DEVICE) and USB2.0 (HOST, wireless module) terminals.

## Professional System Features

- **TC synchro multi-camera recording:** The TC IN/OUT terminal (BNC) allows synchronization of the time code in multi-camera shooting. The camera number (A to Z) can be added\* to the name of the recording folder to facilitate editing.

\*Only when the MOV codec recording. Setting must be made in each camera.

- **Parallel Output of SDI and HDMI:** Output of UHD video via HDMI and output of HD video in high-image-quality 10-bit, 4:2:2 via SDI enable a variety of uses. In V-Log shooting, either V-Log or V709 (HDR or SDR in HLG shooting) can be selected for each of the SDI, HDMI and LCD video outputs.

- **Compatible with LiveU/TVU bonding connection:** displays the device information (battery status/remaining battery capacity/errors) onto the viewfinder/LCD monitor.



Rear view (connection terminals)



**AJ-WM50**  
**AJ-WM50G**

Wireless Module

\*Not available in some areas



Connection confirmed  
Wireless Module

[https://pro-av.panasonic.net/en/sales\\_o/p2/server/wireless\\_module.html](https://pro-av.panasonic.net/en/sales_o/p2/server/wireless_module.html)



**AJ-MC900G**

Stereo Microphone



**AJ-CVF25GJ**

87.6 mm (3.45 inches) Color HD EVF

Open two ways for LCD monitor viewing



**AJ-CVF50G**

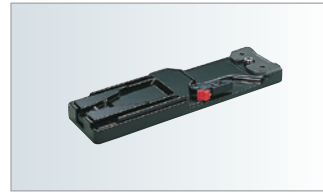
38.1 mm (1.5 inches) HD EVF



**AJ-CVF70GJ**

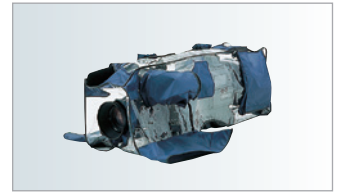
1.78 cm (0.7 inches) Full HD OLED Color Viewfinder

Equipped with full HD OLED panel and 38mm large-diameter eyepiece.



**SHAN-TM700**

Tripod Adaptor



**SHAN-RC700**

Rain Cover

\*Not available in some areas



AK-HRP1000GJ AK-HRP1015GJ

**AK-HRP1000GJ**  
**AK-HRP1015GJ\***

Remote Operation Panel

\*Not available in some areas



AU-XP0512CG AU-XP0256CG

**AU-XP0512CG**  
**AU-XP0256CG**

Memory Card  
"expressP2 card C series"

\*Conventional P2 cards may not be used.



AU-XP0512CG AU-XP0256CG

**AU-XP0512CG**  
**AU-XP0256CG**

Memory Card "expressP2 card" B Series

\*Stock Limited



**AJ-P2M064BG**

Memory Card  
"microP2 card B series"



SDXC Memory Card



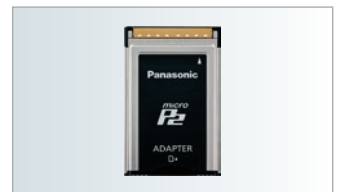
**AU-XPD3**

Memory Card Drive "expressP2 drive"  
High-Speed Thunderbolt™ 3 interface



**AU-XPD1**

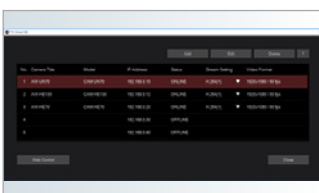
Memory Card Drive "P2 drive"  
Compact and lightweight, USB 3.0/2.0 interface, bus-powered operation.



**AJ-P2AD1G**

Memory Card Adaptor

Required when using a microP2 card with a P2 drive or expressP2 drive.



**PTZ Virtual USB Driver**

Free (OS: Windows 10)

Able to use CX series camera recorders the network as USB cameras.

For more information, please visit our website at <[https://pro-av.panasonic.net/en/software/ptz\\_vud/](https://pro-av.panasonic.net/en/software/ptz_vud/)>.

\*Note on memory cards: Conventional P2 cards cannot be used with the AJ-CX4000GJ. The expressP2 drive AU-XPD3/XPD1 support three types of P2 cards: expressP2 card, P2 card, and microP2 card, but when using microP2 card, memory card adaptor AJ-P2AD1G is required. Connection of the AU-XPD1 requires two USB cables. Power supply to be connected with an AC adaptor or USB 3.0 port of PC. When using the AU-XPD1 with expressP2 card B series, hardware replacement (free of charge) may be required. For more information, please refer to the website <[https://pro-av.panasonic.net/en/sales\\_o/p2/notes/expressp2b.html](https://pro-av.panasonic.net/en/sales_o/p2/notes/expressp2b.html)> "Precautions when using expressP2 card B series".

## General

Power:	DC: 12 V (11.0 V – 17.0 V)
Power Consumption:	32 W (body only, 2160-59.94p/HEVC LongGOP 100M standard recording status, LCD ON) 72 W (with all the accessories connected and maximum power supplied from each output terminal)
Operating Temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating Humidity:	10% to 85% (relative humidity)
Storage Temperature:	-20 °C to 60 °C (-4 °F to 140 °F)
Weight:	Approx. 3.4 kg (7.5 lbs.) (body only)
Dimensions	143 mm (W) × 267 mm (H) × 348 mm (D) (5-5/8 inches × 10-1/2 inches × 13-23/32 inches) (body only, excluding protrusion)

## Camera Unit

Pickup Device:	MOS×1
Number of Pixels:	11.14 million pixels
Lens Mount:	2/3-type bayonet
Optical Filter:	CC filter: A: 3200 K, B: 4300 K, C: 5600 K, D: 6300 K ND filter: 1: CLEAR, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND
Gain Setting:	-6 dB to 30 dB, can be set in 1 dB steps
Digital Super Gain:	Selectable from 6 dB, 10 dB, 12 dB, 15 dB, 20 dB, 24 dB, 28 dB, 34 dB
Super Gain (S.GAIN)	Selectable from 30 dB, 36 dB, 42 dB
Shutter Speed:	[59.94 Hz] 1/100 sec., 1/120 sec., 1/250 sec., 1/500 sec., 1/1000 sec., 1/2000 sec., HALF [50.00 Hz] 1/60 sec., 1/120 sec., 1/250 sec., 1/500 sec., 1/1000 sec., 1/2000 sec., HALF
Synchro Scan Shutter:	[59.94 Hz] 59.94i/59.94p mode: 1/60.0 sec. to 1/7200 sec. 29.97p mode: 1/30.0 sec. to 1/7200 sec. 23.98p mode: 1/24.0 sec. to 1/7200 sec. [50.00 Hz] 50i/50p mode: 1/50.0 sec. to 1/7200 sec. 25p mode: 1/25.0 sec. to 1/7200 sec.
Shutter Open Angle:	3.0 deg to 360.0 deg (can be set in 0.5 deg steps)
Sensitivity:	[NORMAL] mode F6 (2000 lx, 3200 K, 89.9% reflection, 59.94 Hz) F7 (2000 lx, 3200 K, 89.9% reflection, 50.00 Hz) [HIGH SENS.] mode F10 (2000 lx, 3200 K, 89.9% reflection, 59.94 Hz) F11 (2000 lx, 3200 K, 89.9% reflection, 50.00 Hz)
Minimum Illumination:	Approx. 0.005 lx (F1.4, +42 dB (S.GAIN), +34 dB (D.S.GAIN))
Image S/N:	62 dB (standard)
Horizontal Resolution:	UHD: 2000 TV or higher (center) HD: 1000 TV or higher (center)
Digital Zoom:	×2, ×3, ×4

## Memory Card Recorder

Recording Media:	<ul style="list-style-type: none"> <li>expressP2 card</li> <li>microP2 card</li> <li>SDXC memory card: UHS-I/UHS-II, UHS Speed Class 3 compatible, Video Speed Class V90 compatible</li> </ul>
Recording Slot:	expressP2 card slot × 1 microP2/SDXC UHS-II memory card slot × 2
Recording Pixels:	3840 × 2160 (UHD), 1920 × 1080 (FHD), 1280 × 720 (HD) (AVC-Intra50: 1440 × 1080, 960 × 720)
System Frequency:	59.94 Hz/50.00 Hz
Recording Format:	Please see page 4 for the "Recording Format" table.
Recording Video Signal:	3840 × 2160/59.94p, 50p, 29.97p, 25p, 23.98p 1920 × 1080/59.94p, 50p, 29.97p, 25p, 23.98p, 59.94i, 50i 1280 × 720/59.94p, 50p 1440 × 1080/59.94i, 50i (AVC-Intra50) 960 × 720/59.94p, 50p (AVC-Intra50)
Recording Time:	Please see page 7 for the "Recording Time" table.
Two-slot Function:	Simultaneous recording, Relay recording
Special Recording:	Pre-recording, Interval recording

## Digital Video

Number of Quantizing Bits:	<ul style="list-style-type: none"> <li>P2: 4:2:2 10 bit/4:2:0 10 bit (AVC-Intra50)/4:2:0 8 bit (AVC-LongG12)</li> <li>MOV: 4:2:2 10 bit/4:2:0 8 bit/4:2:0 10 bit (HEVC)</li> </ul>
Video Compression:	<ul style="list-style-type: none"> <li>P2: AVC-Intra 422/AVC-LongG50/AVC-LongG25/AVC-LongG12: MPEG-4 AVC/H.264 High Profile</li> <li>P2: AVC-Intra200/AVC-Intra100/AVC-Intra50: MPEG-4 AVC/H.264 Intra Profile</li> <li>MOV: H.264/MPEG-4 AVC High Profile, H.265/MPEG-H HEVC Main10 Profile</li> </ul>

## Digital Audio

Recording Audio Signal:	<ul style="list-style-type: none"> <li>P2: 48 kHz/24 bit, 4 CH (excluding AVC-LongG12) 48 kHz/16 bit, 4 CH (AVC-Intra100*/AVC-Intra50*/AVC-LongG12) *24 bit/16 bit switch by menu</li> <li>MOV: 48 kHz/24 bit, 4 CH</li> </ul>
Audio Recording Format:	<ul style="list-style-type: none"> <li>P2: LPCM</li> <li>MOV: LPCM</li> </ul>
Headroom:	18 dB/20 dB (Can be selected by menu)

## AVC Proxy

File Format	MOV
Video Compression:	H264/AVC High Profile
Audio Compression:	AAC-LC
Recording Time:	Approx. 13 min. per 1 GB of AVC-G6 2CH MOV

\*The recording time decreases to one-half when recorded in 60p/50p. These are reference values for continuous recording using the Panasonic products. The recording time may differ depending on the scene or the number of clips.

## Streaming

Video Compression:	H.264/MPEG-4 AVC Main Profile, H.264/MPEG-4 AVC High Profile
Video Resolution	3640 × 2160 (UHD), 1920 × 1080 (FHD), 1280 × 720 (HD), 640 × 360, 360 × 180
Streaming Method	Unicast, Multicast
Frame Rate	System frequency = 59.94 Hz: 24 fps, 30 fps, 60 fps System frequency = 50.00 Hz: 25 fps, 50 fps
Bit Rate	3640 × 2160 (UHD): 75 Mbps, 50 Mbps, 25 Mbps, 12 Mbps, 8 Mbps Other than those above: 24 Mbps, 20 Mbps, 16 Mbps, 14 Mbps, 8 Mbps, 6 Mbps, 4 Mbps, 3 Mbps, 2 Mbps, 1.5 Mbps, 1 Mbps, 0.7 Mbps, 0.5 Mbps
Audio Compression	AAC LC: 48 kHz/16 bit, 2 CH
Supported Protocol	RTSP/RTP/RTMP/RTMPS/SRT

## Video Output

SDI OUT1:	<ul style="list-style-type: none"> <li>BNC×1</li> <li>12G-SDI: 0.8 V [p-p], 75 Ω</li> <li>3G/HD-SDI: 0.8 V [p-p], 75 Ω</li> <li>SDI remote control supported</li> <li>Output format (4:2:2 10 bit) output 3840 × 2160: 59.94p, 50p, 29.97p, 25p, 23.98p 1920 × 1080: 59.94p, 50p, 59.94i, 50i, 29.97PsF, 25PsF, 23.98PsF 1280 × 720: 59.94p, 50p</li> </ul>
SDI OUT2:	<ul style="list-style-type: none"> <li>BNC×1</li> <li>3G/HD-SDI: 0.8 V [p-p], 75 Ω</li> <li>SD-SDI: 0.8 V [p-p], 75 Ω</li> <li>SDI remote control supported</li> <li>Output format (4:2:2 (10 bit) output) 1920 × 1080: 59.94p, 50p, 59.94i, 50i, 29.97PsF, 25PsF, 23.98PsF 1280 × 720: 59.94p, 50p 720 × 480: 59.94i 720 × 576: 50i</li> </ul>
HDMI:	<ul style="list-style-type: none"> <li>HDMI type A×1 (not compatible with VIERA Link)</li> <li>HDMI remote control supported</li> <li>Output format (4:2:2 (10 bit) output) 3840 × 2160: 59.94p, 50p, 29.97p, 25p, 23.98p 1920 × 1080: 59.94p, 50p, 59.94i, 50i, 29.97p, 25p, 23.98p 1280 × 720: 59.94p, 50p, 720 × 480: 59.94p 720 × 576: 50p</li> </ul>



## Audio Input/Output

AUDIO IN:	XLR×2 (CH1/3, CH2/4), 3-pin LINE/MIC/MIC+48V selected by switch • LINE: 4 dBu/0 dBu/-3 dBu selected by menu • MIC: -40 dBu/-50 dBu/-60 dBu selected by menu • MIC+48V: + 48 V/OFF compatible
MIC IN:	XLR×1, 5-pin +48 V ON/OFF selected by menu -40 dBu/-50 dBu/-60 dBu selected by menu
Wireless Slot:	25-pin, D-SUB, -40 dBu, 2ch supported
AUDIO OUT:	XLR×1, 5-pin 4 dBu/0 dBu/-3 dBu selected by menu, equilibrium low impedance
SDI OUT:	LPCM 4 CH
HDMI:	LPCM 2 CH
PHONES:	3.5 mm diameter stereo mini jack × 2, output impedance 100 Ω
Built-in Speaker:	20 mm diameter, round×1

## Other Input/Output

GENLOCK IN:	BNC×1, 1.0 V [p-p], 75 Ω
TC IN/OUT:	BNC×1, Used as input/output terminal, switch by menu • Input: 0.5 V – 8.0 V [p-p], 10 kΩ • Output: 2.0 V ±0.5 V [p-p], low impedance
DC IN:	XLR×1, 4-pin, DC 12 V (11.0 V – 17.0 V)

DC OUT:	4-pin, DC 12 V (11.0 V – 17.0 V), maximum output current 1.5 A
LENS :	12-pin
VF:	20-pin
LAN:	RJ-45 XLRnet connector: 1000BASE-T/100BASE-TX/10BASE-T
USB2.0 HOST:	Type A connector, 4-pin (5 V, 0.5 A), for attaching the wireless module (optional)
USB DEVICE:	USB 3.1 GEN1 type C connector, with USB mass storage function, without USB bus-powered function
LIGHT:	2-pin, DC12 V (DC 11.0 V – 17.0 V), maximum output current 4.5 A (up to 50 W equivalent)

## Monitor/Viewfinder

LCD Monitor:	3.5-inch LCD color monitor: Approx. 2.76 million pixels, touch panel supported
Display Window:	2.4-inch black and white organic EL

## Included Accessories

Mount cap (come already attached to the camera), Shoulder strap

## Recording Media

Format	Bit Rate / Recording Function	SDXC Memory Card (Speed Class)	microP2 Card	expressP2 Card
MOV	400 Mbps	Video Speed Class V60 or faster	B Series microP2 card only	All expressP2 card types can be used in any recording mode supported by the AJ-CX4000GJ
	200 Mbps	Video Speed Class V30 UHS Speed Class 3 or faster	B Series microP2 card and A Series microP2 card 64 GB (32 GB cards cannot be used)	
	150 Mbps			
	100 Mbps			
	50 Mbps	Video Speed Class V10 UHS Speed Class 1 Speed Class 10 or faster		
P2 MXF <sup>*1</sup>	All recording modes <sup>*1</sup> supported by the AJ-CX4000GJ	— (For emergency recording) <sup>*2</sup>	All microP2 card types can be used	

\*1: Use an expressP2 card or a microP2 card for recording in P2 format. Conventional P2 cards may not be used.

\*2: Data can be recorded in the P2 format on SDXC memory cards, but it is not covered under the manufacturer's support.

## Recording Time

Format		64 GB microP2 Card 64 GB SDXC Memory Card	128 GB SDXC Memory Card	256 GB expressP2 Card	512 GB expressP2 Card	
MOV	UHD	400 Mbps	Approx. 20 min.	Approx. 40 min.	Approx. 1 hour 20 min.	Approx. 2 hours 40 min.
		200 Mbps	Approx. 40 min.	Approx. 1 hour 20 min.	Approx. 2 hours 40 min.	Approx. 5 hours 20 min.
		150 Mbps	Approx. 55 min.	Approx. 1 hour 50 min.	Approx. 3 hours 40 min.	Approx. 7 hours 20 min.
		100 Mbps	Approx. 1 hour 20 min.	Approx. 2 hours 40 min.	Approx. 5 hours 20 min.	Approx. 10 hours 40 min.
	FHD	200 Mbps	Approx. 40 min.	Approx. 1 hour 20 min.	Approx. 2 hours 40 min.	Approx. 5 hours 20 min.
		100 Mbps	Approx. 1 hour 20 min.	Approx. 2 hours 40 min.	Approx. 5 hours 20 min.	Approx. 10 hours 40 min.
	50 Mbps	Approx. 2 hours 40 min.	Approx. 5 hours 20 min.	Approx. 10 hours 40 min.	Approx. 21 hours 20 min.	
P2 MXF	AVC-Intra422 AVC-Intra200	Approx. 32 min.	—	Approx. 2 hours 8 min.	Approx. 4 hours 16 min.	
	AVC-Intra100 (1080-59.94i/50i or 720-59.94p/50p)*	Approx. 1 hour 4 min.	—	Approx. 4 hours 16 min.	Approx. 8 hours 32 min.	
	AVC-Intra50	Approx. 2 hours 8 min.	—	Approx. 8 hours 32 min.	Approx. 17 hours 4 min.	
	AVC-LongG50	Approx. 2 hours 8 min.	—	Approx. 8 hours 32 min.	Approx. 17 hours 4 min.	
	AVC-LongG25 (1080-59.94i/50i or 720-59.94p/50p)*	Approx. 4 hours 16 min.	—	Approx. 17 hours 4 min.	Approx. 34 hours 8 min.	
	AVC-LongG12 (1080-59.94i/50i or 720-59.94p/50p)*	Approx. 8 hours	—	Approx. 32 hours	Approx. 64 hours	

\*The recording time decreases to one-half when recorded in 1080-59.94p/50p.

### Notes Regarding Network Functions

•**For wireless LAN connection:** The optional wireless module is required. For the OS, browser, device compatibility information, see "Service and Support" on the Panasonic website <<https://pro-av.panasonic.net/>>. Some functions are not supported by some devices.

•**For streaming:** PC must be able to access directly each other by Public IP (Global IP). Please contact your provider to get Public IP (Global IP).

•**For LiveU and TVU bonding services:** Connection requires communication devices offered by both LiveU and TVU Networks. For details, please visit the following website. <[https://pro-av.panasonic.net/en/sales\\_o/p2/bonding\\_devices/index.html](https://pro-av.panasonic.net/en/sales_o/p2/bonding_devices/index.html)> "Connection Confirmed Bonding Devices"

### Precautions When Using SDXC Memory Cards

Use an SDXC memory card that conforms to the SDXC standard. Memory cards other than SDXC (such as multimedia cards) cannot be used. Be sure to use this unit for formatting.

### Notes Regarding the Handling of P2 Files Using a PC

#### Mounting and Transferring Files

The PC must be installed with the included P2 driver in order to recognize, copy and transfer P2 files. This driver is also necessary when using the PC card slot and when handling P2 files stored on a hard-disk device. For other operating requirements, refer to the P2 installation manual. The P2 driver and the P2 installation manual can be downloaded free from a Panasonic website. Visit <<https://pro-av.panasonic.net/en/download/>>

#### Preview and Nonlinear Editing

To preview (play) P2 files on a PC, it is necessary to install P2 Viewer Plus software (downloadable for free, for Windows and Mac), both from Panasonic, or P2-compatible editing software available from other companies (for details, visit <[https://pro-av.panasonic.net/en/sales\\_o/p2/partners.html](https://pro-av.panasonic.net/en/sales_o/p2/partners.html)>). Note that each software places specific requirements on the operating environment, and the operating environment must meet additional requirements to play and edit HD content on Windows PCs and Macs. For P2 Viewer Plus download and operating requirement information, visit <<https://pro-av.panasonic.net/en/download/>>. For operating requirements and details of other P2 editing software, visit the website of the relevant software manufacturer.

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For more information, please visit Panasonic web site  
<https://pro-av.panasonic.net/en/qr/>



Factories of AVC Networks Company have received ISO14001:2004-the Environmental Management System certification. (Except for 3rd party's peripherals.)



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