Panasonic

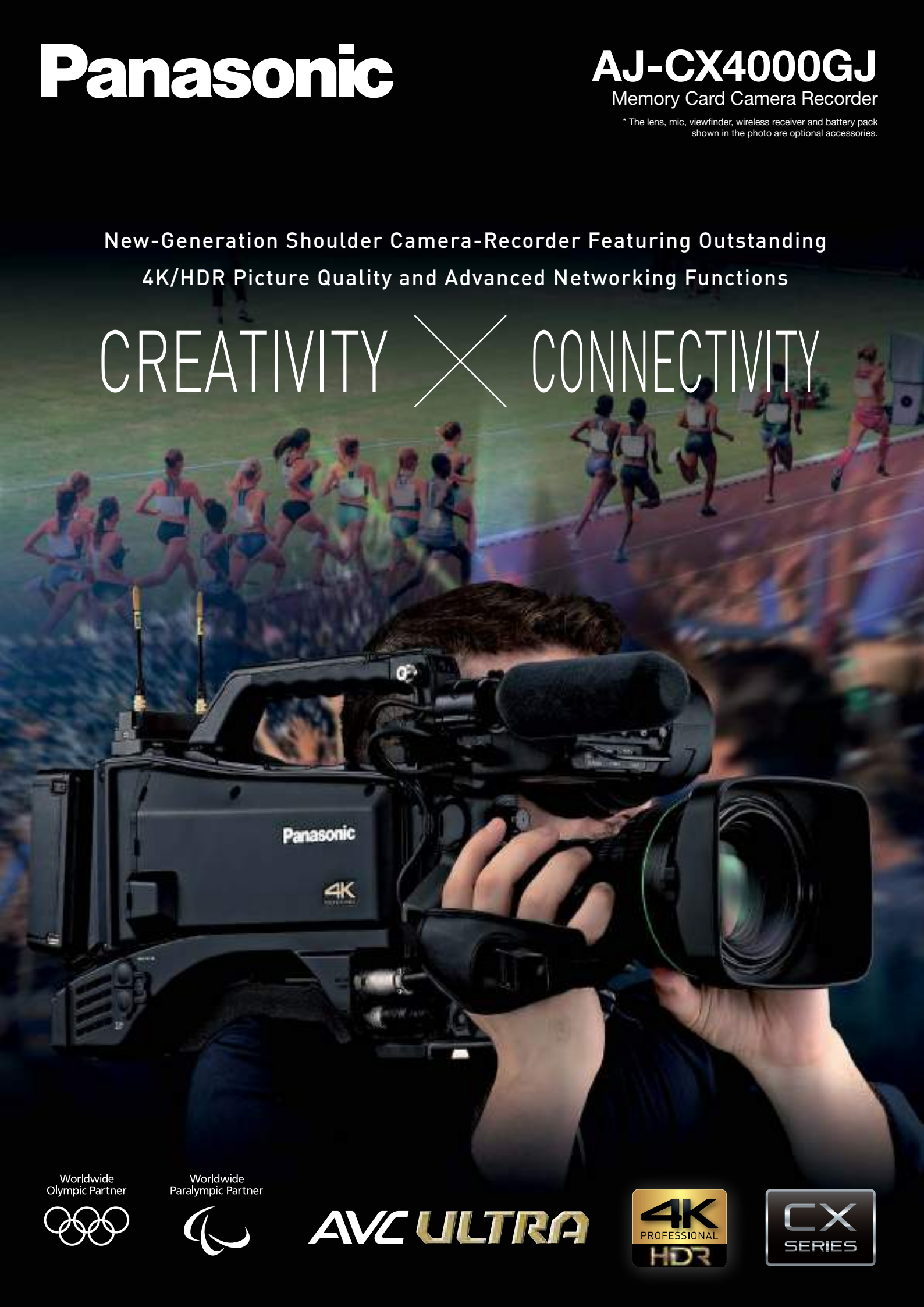
AJ-CX4000GJ

Memory Card Camera Recorder

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

New-Generation Shoulder Camera-Recorder Featuring Outstanding 4K/HDR Picture Quality and Advanced Networking Functions

CREATIVITY × CONNECTIVITY



Worldwide Olympic Partner

Worldwide Paralympic Partner

AVC ULTRA

4K PROFESSIONAL HDR

CX SERIES

4K & HDR Images with a Resolution of 2000 TV Lines, 4K 10-Bit 100-Mbps HEVC Codec Recording, Networking Solutions of Live Streaming and NDI|HX*1 IP Connection

CREATIVITY × CONNECTIVITY

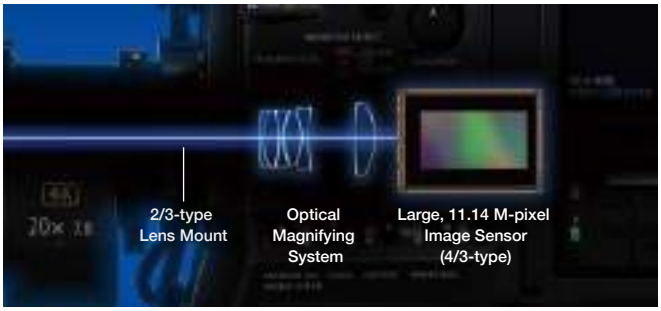
4K HDR Picture Quality
4K 10-bit HEVC Codec
expressP2 card

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

The AJ-CX4000GJ new-generation Camera Recorder responds to the emerging needs of the broadcasting industry, such as high-quality 4K recording and network distribution, while retaining the broadcast-standard B4 lens mount and shoulder-mount design.
The large-size 11.14 M-pixel image sensor provides a high horizontal resolution of 2000 TV lines for recording of 4K/HDR images. A nimble workflow can be realized by using the HEVC codec for high-efficiency 4K 10-bit recording and the expressP2 card with high transfer speed. What's more, the HD direct streaming function that enables live streaming to social media and the NDI|HX-compatible*1 IP connection function offer innovative networking solutions.
The AJ-CX4000GJ also supports the AVC-ULTRA codec*2 used by the P2HD Series to permit smooth linkage with existing 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.

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. If designed 4K image sensor with a 2/3-type size, the pixel size is reduced from the 5.0 microns of HD to 2.5 microns, thereby lowering the image quality and sensitivity.
An optical magnifying lens allows the mounting of a large sensor on a 2/3-type lens mount.
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.

HDR Shooting Assist Functions

- **SDR Monitoring Gamma:** Gamma curves for monitoring HLG images with the SDR viewfinder or other SDR monitor.
- **HDR/SDR Parallel Output:** Dual SDI can output both HDR and SDR simultaneously.
- **VF/LCD HDR/SDR Selector:** Assignable to the USER button for easy switching between HDR and SDR even during recording.
- **Eight mode Gamma:** Select from HD/SD/FILMLIKE 1/FILMLIKE 2/FILMLIKE 3/FILM-REC/VIDEO-REC/HLG gamma curves.

* 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.

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.

2.4-Type Black-and-White Organic EL Display

The 2.4-type black-and-white organic EL display offers high brightness and clearly shows the status information even in outdoor environment, such as the timecode and audio input level.

High Picture Quality with Shooting Assist Functions

- **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.
- **Mode Check:** Displays a list of the camera settings on VF and LCD.
- **Rec Check:** This lets you run a quick playback check of the clip-end.
- **User Buttons:** Functions can be freely allocated to the five User buttons.

* Pictures simulated.

HEVC Codec for High-Image-Quality 4K Recording at Low Bit Rates

The AJ-CX4000GJ is capable of recording in various formats at different compression rates (see the table below).
Using the new, high-efficiency codec, HEVC (H.265, LongGOP, 10-bit, 4:2:0, MOV), the AJ-CX4000GJ records high-quality 4K 10-bit images at a 100-Mbps bit rate.

Free software, such as the VLC Media Player or QuickTime Player, provides smooth playback on a notebook PC or MacBook.*

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

MOV/P2 MXF File Formats Supported

The AJ-CX4000GJ records MOV files that are highly compatible and easy to use. This file format is the same as that used on Panasonic's AG-CX350 Memory Card Camera Recorder, and supports long file names with up to 20 characters, allowing recorded video clips to be easily managed. And it supports the MXF P2 file format for broadcasting, enabling AVC-Intra or AVC-LongG HD recording.

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.

* For memory card usage conditions, see the "Recording Media" chart on page 7. Conventional P2 cards cannot be used.

A Host of Recording Functions

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.

* 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.

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.

* The audio signal can be played back by using 24-bit digital audio equipment. For details, refer to the back page.

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	24 bit LPCM
		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	
		4:2:0 Long GOP 100M	3840 × 2160	4:2:0	8 bit	100 Mbps (VBR)	29.97p, 25p, 23.98p	
	HD	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	
		4:2:2 Long GOP 50M	1920 × 1080	4:2:2	10 bit	50 Mbps (VBR)	29.97p, 25p, 23.98p, 59.94i, 50i	
P2(MXF)	HD	AVC-Intra200 (OP-Atom)	1920 × 1080	4:2:2	10 bit	200 Mbps (59.94i)	59.94i, 50i	24 bit LPCM
			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	16 bit/24 bit LPCM
			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	
			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	24 bit LPCM
		AVC-LongG50 (OP1b)	1920 × 1080	4:2:2	10 bit	50 Mbps (59.94i) (VBR)	59.94i, 50i	
			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	
			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	16 bit LPCM
			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.

Direct Live Streaming

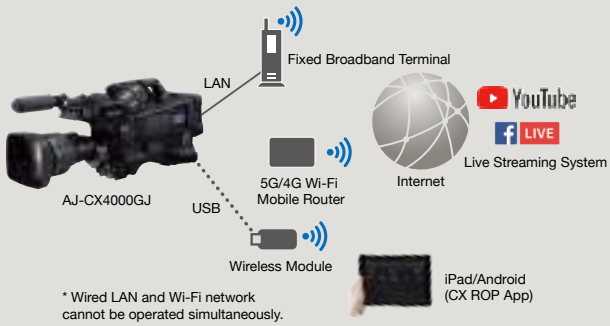
HD streaming is possible while images are being acquired.*1 RTSP, RTMP and RTMPS streaming methods are compatible.*2 And Facebook, YouTube, and other streaming services are supported. Multicast streaming is also supported.

*1: There are some conditions under which streaming is not possible, such as when recording in UHD format or using NDI|HX mode.

*2: The P2 Network Setting Software is convenient for setting up the RTMP and RTMPS functions. See the section, "Connection Confirmed Live Video Distribution Services," for the live video streaming services that have been confirmed to be compatible.

Connection Confirmed Live Video Distribution Services

Live Video Streaming System



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 HN/UN series PTZ integrated 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

NDI | HX Multi-Camera Live Production System

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.

Wireless Control from a Tablet or Smartphone

The AJ-CX4000GJ can be controlled remotely and wirelessly using the tablet/smartphone app "CX ROP"*1 (downloadable for free from the App Store or Google Play). This app allows 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).

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

*1: iPad: iOS 9 or later are supported. Android devices: Android 5.0 or later are supported. Wireless module (sold separately; AJ-WM50, AJ-WM50G or recommended third-party Wi-Fi dongle) is required.

* Pictures simulated.

CX ROP

Download on the App Store

Google Play

Specifications

As of April 2020

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: (DS.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 (DS.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:	• expressP2 card • microP2 card • SDXC memory card: UHS-I/UHS-II, UHS Speed Class 3 compatible, video Speed Class V90 compatible
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:	• P2:	4:2:2 10 bit/4:2:0 10 bit (AVC-Intra50)/ 4:2:0 8 bit (AVC-LongG12)
	• MOV:	4:2:2 10 bit)/4:2:0 8 bit/4:2:0 10 bit (HEVC)
Video Compression:	• P2:	AVC-Intra 422/AVC-LongG50/AVC-LongG25/ AVC-LongG12: MPEG-4 AVC/H.264 High Profile
	• P2:	AVC-Intra200/AVC-Intra100/AVC-Intra50: MPEG-4 AVC/H.264 Intra Profile
	• MOV:	H.264/MPEG-4 AVC High Profile, H.265/MPEG-H HEVC Main10 Profile

Digital Audio

Recording Audio Signal:	• 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
	• MOV:	48 kHz/24 bit, 4 CH
Audio Recording Format:	• P2:	LPCM
	• MOV:	LPCM
Headroom:	18 dB/20 dB (Can be selected by menu)	

Streaming

Video Compression:	H.264/MPEG-4 AVC Main Profile H.264/MPEG-4 AVC High Profile
Video Resolution:	1920 × 1080 (FHD), 1280 × 720 (HD), 640 × 360, 320 × 180
Streaming Method:	Unicast, Multicast
Frame Rate:	[59.94 Hz]: 24 fps, 30 fps, 60 fps [50.00 Hz]: 25 fps, 50 fps
Bit Rate:	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
Audio Compression:	AAC-LC: 48 kHz/16 bit, 2 CH
Supported Protocol:	RTSP/RTP/RTMP/RTMPS

Video Output

SDI OUT1:	• BNC×1 12G-SDI: 0.8 V [p-p], 75 Ω 3G/HD-SDI: 0.8 V [p-p], 75 Ω • SDI remote control supported • Output format (4:2:2 10 bit) 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
SDI OUT2:	• BNC×1 3G/HD-SDI: 0.8 V [p-p], 75 Ω SD-SDI: 0.8 V [p-p], 75 Ω • SDI remote control supported • 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
HDMI:	• HDMI type A×1 (not compatible with VIERA Link) • HDMI remote control supported • 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

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 100Ω
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

Options

As of April 2020

Options

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

AJ-CVF25GJ NEW
57.6 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-MC900G
Stereo Microphone

SHAN-TM700
Tripod Adaptor

SHAN-RC700
Rain Cover

*Not available in some areas

AU-XP0512CG AU-XP0256CG

AU-XP0512CG
AU-XP0256CG
Memory Card
“expressP2 card C series”

AJ-P2M064BG
Memory Card
“microP2 card B series”

SDXC Memory Card

*Conventional P2 cards may not be used.

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 AG-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*1	All recording modes*1 supported by the AJ-CX4000GJ	— (For emergency recording) *2	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. 3 hours 40 min.
		150 Mbps	Approx. 55 min.	Approx. 1 hour 50 min.	Approx. 3 hours 40 min.	Approx. 5 hours 20 min.
		100 Mbps	Approx. 1hour 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. 3 hours 40 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. 4 hours 16 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).

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>). 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.

Note Regarding 24 bit Audio

Clips recorded using 24 bit audio must be played back with 24 bit compatible P2 equipment or the P2 Viewer/P2 Viewer Plus. If clips are played back with equipment not compatible with 24 bit audio, the clip number will be indicated in red and the clips will not be played back. A P2 Viewer not compatible with 24 bit audio will not reproduce the sound properly. To play back those clips, use the latest version of P2 Viewer/P2 Viewer Plus. For the latest information on 24 bit compatible P2 equipment and P2 Viewer/P2 Viewer Plus, see “Support & Download” on the Panasonic website <https://pro-av.panasonic.net/>.

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*Specifications are subject to change without notice.

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

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

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