Panasonic

4K PROFESSIONAL **HDR**

CX SERIES

ENHANCED CREATIVITY AND CONNECTIVITY FOR NEXT-GENERATION VIDEO PRODUCTION

CREATIVITY ✕ CONNECTIVITY

High-quality 10-bit 4K V-Log Imaging and Professional-level Operability
Enhanced with 12G-SDI Output and Four-channel Audio Input

Panasonic's CX Series of professional camcorders supports enhanced *creativity* by delivering high-resolution video for diverse content creation and operability that maximizes the potential of professional shooting techniques. It also responds to the converging needs of broadcasting and IT by delivering enhanced *connectivity* through seamless integration with future-ready systems.

The AG-CX370, the newest addition to Panasonic's CX Series, is a high-end handheld camcorder ideal for contemporary video production. Building on the performance and operability of the existing AG-CX350, it features 10-bit 4K recording, a wide-angle, high-power zoom lens, HDR-compatible V-Log/HLG image quality and manual three-ring control for precise operation.

Expanded functionality includes a new four-channel audio input terminal, four-channel independent volume control, a GENLOCK input terminal for synchronized multi-camera recording, 12G-SDI for uncompressed 4K video output, and NDI® HX2-compatible IP output for enhanced operability.

The lightweight, compact, low-power AG-CX370 provides professionals with a powerful solution for production, broadcasting and streaming.

Upgrades from the AG-CX350

- ▶ **12G-SDI output:** SDI OUT supports 12G-SDI for uncompressed 4K video streaming.
- ▶ **GENLOCK input:** Enables multi-camera synchronization similar to professional broadcast cameras.
- ▶ **Four-channel audio input:** Equipped with a 3.5mm stereo mini-jack input as well as two XLR inputs.
- ▶ **Four-channel audio input volume:** Features an independent volume dial for each of four channels.
- ▶ **NDI® HX2 compatibility:** Supports high-quality IP live video production.
- ▶ **Vertical video flag function:** Ingest, playback, and edit as vertical video using video editing software.

NDI®, a video connectivity technology, is registered as a trademark of Vizrt NDI AB in the United States and other countries.

Wide-angle, High-power Zoom Lens with Three Manual Rings, Precision AF and Robust Image Stabilization

Wide-Angle 24.5 mm Optical 20x Zoom

This lens has the angle of 24.5 mm[*1] on the wide end and allows recording of wide-angle images with minimal distortion, without the use of a conversion lens. The optical 20x zoom covers up to 490 mm telephoto in all modes. Furthermore, the i.Zoom enables seamless zooming of up to 32x in HD or up to 24x in UHD from the telephoto end with no degradation in resolution. The AG-CX370 also comes with digital 2x/ 5x/10x zoom.[*2]

*1: In 35 mm equivalent, wide angle of 24.5 mm is achieved in UHD/FHD (16:9).
*2: When using the digital zoom, picture quality degrades as the magnification rate increases.

Manual Three Rings and Focus Assist

The AG-CX370 comes with Manual Three Rings for zoom, focus and iris control. They deliver quick response and provide tactile feel that satisfies professionals. The zoom lever located at the upper section of the handle has a multi-step variable zoom function, allowing smooth zooming from ultra-low speed when shooting from low angle shooting and when a tripod is used. The AG-CX370 is also equipped with Expand and Peaking (simultaneous display possible), Manual Focus Assist, LCD Touch Focus (switchable to Auto Iris or brightness display), Area Focus and One-Push AF Focus Assist.

Intelligent AF and Face Detection/Tracking AE & AF

The AG-CX370's auto focus system is Intelligent AF, which is equipped with a micro drive focus unit to achieve high focusing speed, excellent tracking performance and superb stability. Equipped with Face Detection AE & AF, it detects human faces (up to 9 faces/automatically determines the main face) and automatically adjusts exposure and focus. In addition, it has an auto-tracking AE & AF function that follows the subject (color) touched on the LCD monitor.*

*The face detection AE & AF does not function during infrared recording, VFR/super slow recording or when using Expand/Focus Assist or AREA/AF AREA.

5-Axis Hybrid Image Stabilizer

The AG-CX370 has a built-in hybrid image stabilizer that combines optical and electronic camera shake compensation functions. It corrects camera shake in five axial directions in all modes* including UHD to provide powerful camera shake compensation power in low-angle shooting, high-angle shooting and all other unstable conditions. There are three modes to choose from: NORMAL (standard), STABLE (effective for fixed-frame shooting) and PAN/TILT (effective in panning and tilting).

* Excluding Super Slow and VFR modes.

1. Roll
2. X
3. Y
4. Pitch
5. Yaw

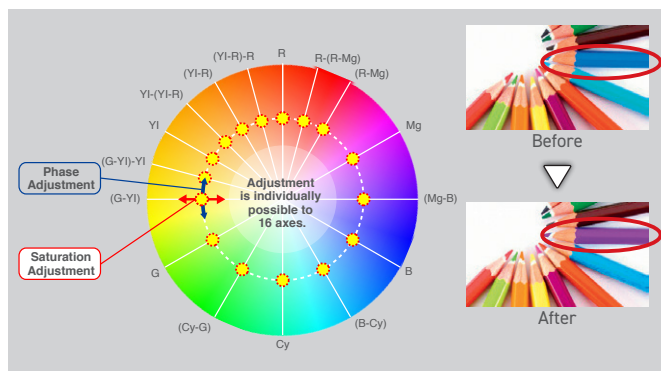## High-Quality 4K/HDR Images with a 1.0-type Sensor and V-Log/HLG Gamma

High-Definition, High-Sensitivity 1.0-type 15M MOS Sensor
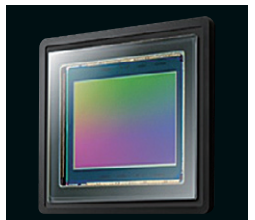
The 1.0-type MOS (approximately 15,030,000 pixels) offers an outstanding depth of field and excellent balance between image quality and sensitivity. It supports multi-formats, such as UHD (3840 x 2160), FHD and HD provides images without cropping in all modes. This MOS sensor also boasts high sensitivity of F12 (60 Hz) /F13 (50 Hz) (in both UHD and FHD in High Sensitivity mode).

Broadcast-Grade Picture Quality Adjustment Functions

- **16-Axis Independent Color Correction:** Provides an independent effect to each of the 16 phases of video images. It enables color matching of multiple cameras under the same lighting conditions as well as creative image rendering.
- **Master Detail:** Adjusts the overall degree of contour enhancement.
- **Skin Detail:** Makes skin colors appear soft and beautiful.
- **Scene Files:** Six preset files are provided. You can change any of the settings as desired.
- **Other Picture Settings:** Matrix tables, V detail, detail coring, chroma level, chroma phase, color temperature, master pedestal and knee.

HDR-Compliant V-Log/HLG (Hybrid Log-Gamma)

4K PROFESSIONAL HDR

The AG-CX370 features HLG (Hybrid Log-Gamma)[*1] to support HDR (High Dynamic Range,) in addition to V-Log gamma, which is equipped with 13.5 stops of wide dynamic range. The gamma mode can be selected from nine modes (HD, SD, FILMLIKE 1, FILMLIKE 2, FILMLIKE 3, FILM-REC, VIDEO-REC, HLG, V-Log).

*1: 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 Rec. 2100.

Simultaneous Display on High-Brightness, High-Definition LCD and High-Resolution OLED EVF

The AG-CX370 features a 3.2-type high-definition LCD monitor (approximately 1,620,000 dots). This LCD monitor uses the RGBW (red, green, blue, white) pixel structure to provide high visibility even in bright sunlight. The 3:2 aspect ratio enables the display of timecode and camera status without superimposing on the image. The touch panel function allows convenient touch focus and menu setting. The viewfinder is a high-resolution color OLED (approximately 2,360,000 dots, with an image display area of approximately 1,770,000 dots) that offers superb color reproduction. The AG-CX370 supports simultaneous LCD and EVF outputs, the LCD monitor can display the captured image at all times even when you look away from the EVF.

16-Axis Independent Color Correction Illustration

LCD Monitor Screen While Shooting (Pictures simulated)

Versatile Recording with Multi-codec Support, Four-channel Audio, and Dual Card Slots

High-quality 10-bit 4K/60p Recording using HEVC Codec

The AG-CX370 supports numerous recording formats and compression rates (see page 6). High-quality 10-bit 4K (UHD) 60p (or 50p) video can be recorded onto a memory card, and the efficient HEVC codec enables smooth playback on notebook PCs. Highly compatible MOV files support filenames up to 20 characters, for easy clip management.

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

10-bit Variable Frame Rate (VFR) without Cropping

In UHD, variable frame rate (VFR) recording at 1 fps to 60 fps is possible. In FHD, super-slow can be realized at a maximum of 120 fps. Both provide high-quality 10-bit, full-frame pictures with no image area cropping even at high frame rates.

* VFR and super slow are supported only in MOV recording mode.

P2 MXF File Formats Supported with Proxy and Shot Mark

The AG-CX370 supports broadcast-ready P2HD (MXF) file formats. Simultaneous recording of main and proxy files allows dual gamma capture (V-Log/V-709 and HDR/SDR). Shot Mark is also supported for thumbnail display and playback of only marked clips. Operation is equivalent to that of professional P2HD camcorder systems, and conventional AVCHD recording is also supported.

*Proxy recording cannot be used during MOV/AVCHD/AVC-LongG12 codec recording, streaming, NDI®|HX2, VFR, interval recording, simulcast recording, background recording and timestamp recording.
*Shot Mark cannot be used during MOV/AVCHD codec recording, interval recording and when playback is paused. In simultaneous recording mode, the Shot Mark as last clip is not supported.

Versatile 4-Channel Audio Input with Independent Volume Controls

Alongside two XLR inputs, a 3.5mm stereo mini-jack input supports up to four external microphones for 4-channel audio recording.*1 In MOV or P2 MXF mode, 24-bit linear PCM recording achieves exceptional sound quality. Each channel is equipped with a dedicated volume control for precise manual adjustment. Other audio features include a 4-channel manual volume control, an OSD level meter, 1 kHz test tone output*2 and a headphone output (3.5 mm-diameter stereo mini-jack).

*1: When MOV or P2 MXF is selected as the main recording format. In AVC-LongG12 mode, only 16-bit LPCM 4-channel recording is supported. And in AVCHD mode, only 2-channel recording is possible.
*2: This output is produced when the color bar is displayed. When the 50 Hz system frequency is selected, the output is 997 Hz.

Double Memory Card Slots Improve Recording Reliability

Two SD memory card*1 slots enables unlimited*2 relay recording by changing memory cards. Recording reliability is further improved with simultaneous recording and background recording*3.
And the AG-CX370 is equipped with Pre Rec, Interval Rec, Time Stamp and Still Image Capture recording functions.

Unlimited Relay Recording*2

Automatically records continuously from Slot 1 to Slot 2. By changing a full card with a new card, images can be recorded continuously for many hours.
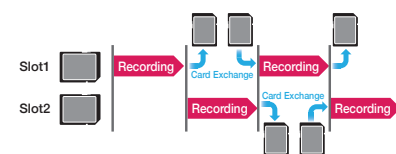
Simultaneous Recording

Identical data is recorded onto cards in both slots in this dual recording mode.

Background Recording*3

Records ordinary Rec Start/Stop-controlled data in Slot 1, and records all data, even when Slot 1 is stopped, in Slot 2.

*1: For memory card usage conditions, please refer to the Recording Media table on page 6.
*2: 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.
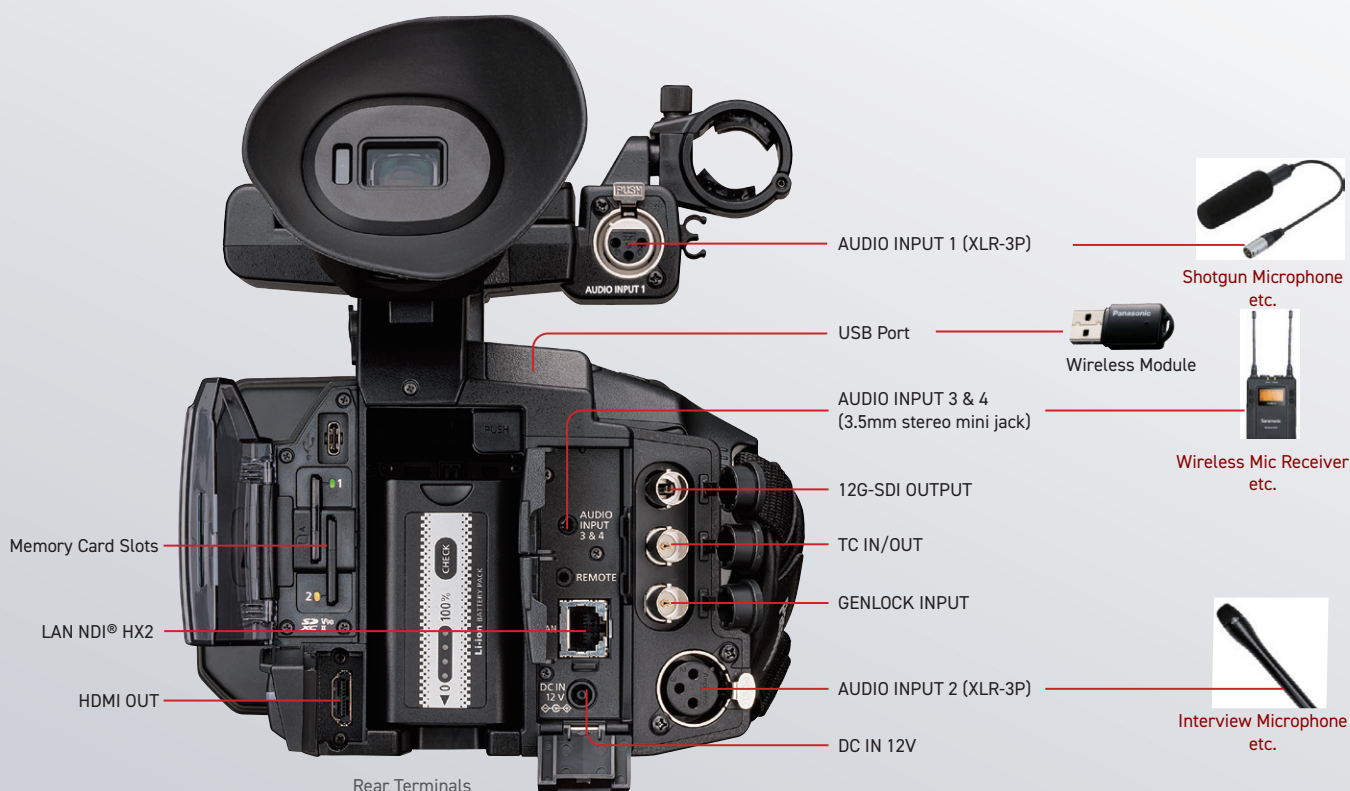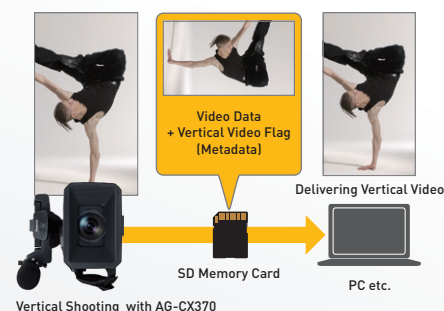*3: Supported only in MOV recording mode.

REC Metadata with Vertical Video Flag Support

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.

A new vertical video flag function has been added. Recorded video files can now be ingested, played back, and edited as vertical video using video editing software.*

*Note: Vertical video flagging is only enabled for MOV recording and is not supported for streaming.

Delivering Vertical Video

Video Data + Vertical Video Flag (Metadata)

SD Memory Card

PC etc.

Vertical Shooting with AG-CX370

AUDIO INPUT 1 (XLR-3P)

Shotgun Microphone etc.

USB Port — Wireless Module

AUDIO INPUT 3 & 4 (3.5mm stereo mini jack)

Wireless Mic Receiver etc.

12G-SDI OUTPUT

TC IN/OUT

GENLOCK INPUT

Memory Card Slots

LAN NDI® HX2

HDMI OUT

AUDIO INPUT 2 (XLR-3P)

Interview Microphone etc.

DC IN 12V

Rear Terminals

12G-SDI Output, IP (NDI® HX2) Connectivity, and Direct Streaming for Live Camera Operations

Equipped with 12G-SDI Output and GENLOCK Input

The SDI output terminal now supports 12G for high-quality, uncompressed 4K video streaming to the latest video equipment. Additionally, the newly integrated GENLOCK input terminal enables broadcast-grade synchronization in multi-camera systems.

Optimized IP Live Production with NDI® HX2

Built-in NDI® HX2 compatibility is provided for IP-based transmissions and camera control when connected to NDI®-compatible devices such as switchers and decoders. NDI® HX2 efficiency ensures seamless live production for event broadcasting, online streaming and more.
* Recording, streaming and 4K output are not available when using NDI® HX2 mode.

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• NDI® is a video connectivity technology and is registered as a trademark by Vizrt NDI AB in the United States and other countries.

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. It is compatible with many services such as Facebook and YouTube and allows you to directly broadcast without an external encoder unit.
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 8/12/25/50/75 Mbps bitrate can be selected. Also supports USB tethering using a 5G smartphone.

*Not compatible with NDI® HX2 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.
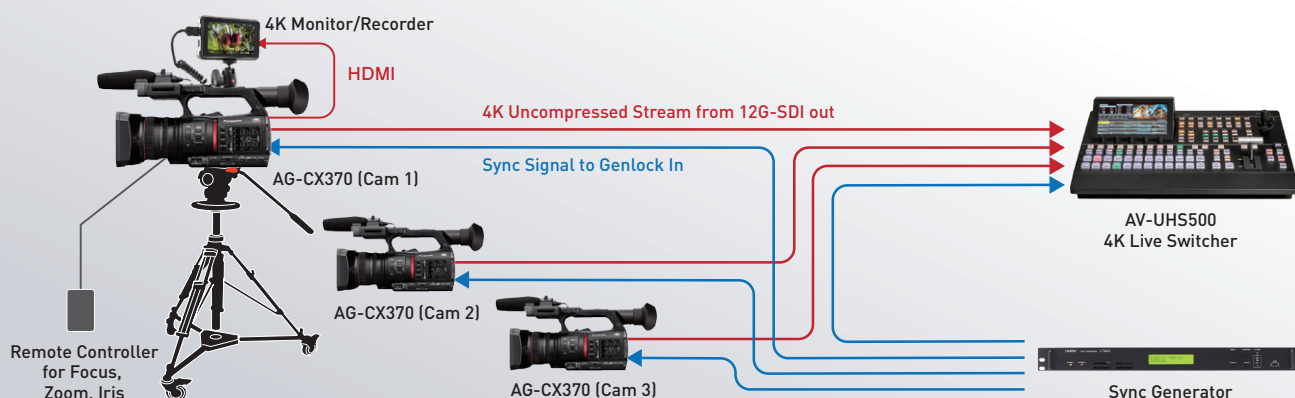
See the website, <https://pro-av.panasonic.net/en/support/connection_confirmed/server/usb_tethering.html> for the smartphone that have been confirmed to be compatible.

See the website, <https://pro-av.panasonic.net/en/support/connection_confirmed/live_video/> for the live video streaming services that have been confirmed to be compatible.

Connectivity-verified live video services

System Example Using 12G-SDI Out and Genlock In

- 4K Monitor/Recorder
- HDMI
- AG-CX370 (Cam 1)
- 4K Uncompressed Stream from 12G-SDI out
- Sync Signal to Genlock In
- Remote Controller for Focus, Zoom, Iris
- AG-CX370 (Cam 2)
- AG-CX370 (Cam 3)
- AV-UHS500 4K Live Switcher
- Sync Generator

IP Live Production System Compatible with NDI® HX2

- NDI® HX2 Compatible Switcher
- NDI® HX2 Compatible Decoder
- NDI® HX2 Compatible PTZ Camera
- LAN
- LAN (GbE)
- AG-CX370
- AV-UHS5M6G NDI I/F Unit
- AV-UHS500 4K Live Switcher

Live Video Streaming System
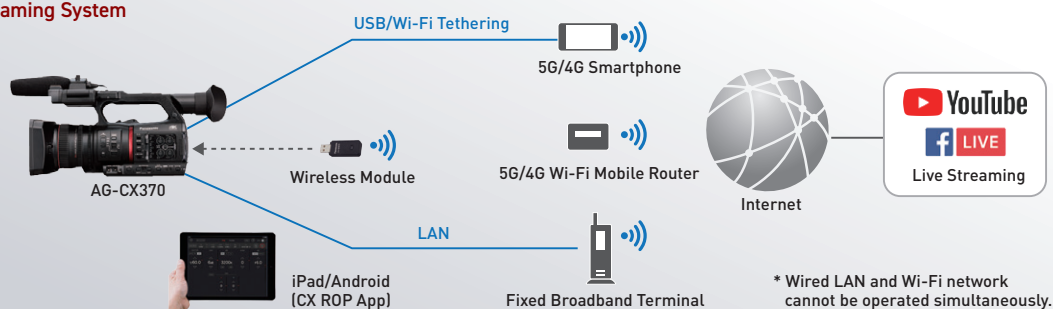
- USB/Wi-Fi Tethering
- 5G/4G Smartphone
- Wireless Module
- 5G/4G Wi-Fi Mobile Router
- AG-CX370
- LAN
- iPad/Android (CX ROP App)
- Fixed Broadband Terminal
- Internet
- YouTube
- Facebook LIVE Live Streaming
- * Wired LAN and Wi-Fi network cannot be operated simultaneously.

Professional-grade System Expandability and Mobility

Wired/Wireless Remote-control Capability

- **Wired Remote Control:** The remote terminal (2.5 mm super mini jack) enables the control of the focus and zoom using a remote controller (third-party product).
- **IP Remote Control:** When connected via a wired LAN, the AG-CX370 can be operated remotely using devices such as the AW-RP150GJ remote camera controller or the AK-HRP1010GJ, AK-HRP1015GJ remote operation panels.
- **Wireless Remote Control:** Remote operation is also possible via the free CX ROP tablet/smartphone app (available from the App Store and Google Play).* The app enables wireless zoom, i.Zoom, focus, camera settings and adjustments, REC start/stop, menu settings, metadata transfer, port number assignment, and more. In multi-camera mode, the app can connect to up to eight CX Series camcorders (AG-CX370, AG-CX350 and AJ-CX4000GJ) for seamless switching between units.**

* iPhone/iPad: iOS 12 and later are supported. Android devices: Android 5.0 and later are supported. A wireless module (optional AJ-WM50, AJ-WM50G or recommended third-party Wi-Fi dongle) is required.
** Simultaneous/synchronous control of multiple cameras is not supported. Switching cameras takes several seconds.
• The Apple App Store and iPad are service marks or trademarks of Apple Inc. registered in the United States and other countries.

CX ROP
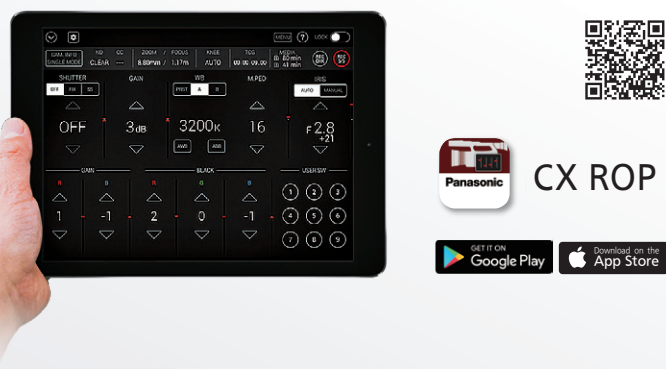
Professional System Features

- **Parallel Output of SDI and HDMI:** Both SDI and HDMI support 4K 10-bit high-quality video output. 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.
- **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.
- **Genlock Input Terminal:** It enables broadcast-grade synchronization in multi-camera systems.
- **Automatic Tally:** TSL protocol compatibility allows automatic tally lamp activation when connected to a switcher.
- **Compatible with LiveU/TVU Bonding Connection:** displays the device information (battery status/remaining battery capacity/errors) onto the viewfinder/LCD monitor.

Low Power Consuming, Large-Capacity Battery, Quick Charge

The AG-CX370 boasts low power consumption of 17 W (in factory setting, with no devices connected to the terminals). The maximum power consumption is only 26 W (HEVC recording, LCD turned ON, devices connected to the terminals). With the supplied battery pack (5,900 mAh), the AG-CX370 operates continuously for about 2 hours and 10 minutes. This large-capacity battery pack supports quick charges.*

* Quick charge is possible only when the AG-BRD50 battery charger is used.

Recording Format

Recording Format		Pixels	Color Sampling	Bit Depth	Bit Rate		File Format	VFR*²	Audio
MOV (HEVC)	HEVC LongGOP 200M	3840 x 2160	4:2:0	10 bit	200 Mbps	(VBR)	59.94p, 50p	1 to 60 fps [50 fps] (Max. 200 Mbps)	
	HEVC LongGOP 150M	3840 x 2160	4:2:0	10 bit	150 Mbps	(VBR)	29.97p, 25p, 23.98p		
	HEVC LongGOP 100M	3840 x 2160	4:2:0	10 bit	100 Mbps	(VBR)	59.94p, 50p		
MOV (AVC)	UHD 422ALL-I 400M	3840 x 2160	4:2:2	10 bit	400 Mbps	(VBR)	29.97p, 25p, 23.98p	1 to 30 fps [25 fps]	24 bit LPCM
	UHD 422LongGOP 150M	3840 x 2160	4:2:2	10 bit	150 Mbps	(VBR)	29.97p, 25p, 23.98p	1 to 30 fps [25 fps]	
	UHD 420LongGOP 150M	3840 x 2160	4:2:0	8 bit	150 Mbps	(VBR)	59.94p, 50p	1 to 60 fps [50 fps] (Max. 150 Mbps)	
	UHD 420LongGOP 100M	3840 x 2160	4:2:0	8 bit	100 Mbps	(VBR)	29.97p, 25p, 23.98p		
	FHD 422ALL-I 200M	1920 x 1080	4:2:2	10 bit	200 Mbps	(VBR)	59.94p, 50p	1 to 60 fps [50 fps] Super Slow: 120 fps [100 fps] (Max. 400 Mbps)	
	FHD 422ALL-I 100M	1920 x 1080	4:2:2	10 bit	100 Mbps	(VBR)	29.97p, 25p, 23.98p, 59.94i, 50i		
	FHD 422LongGOP 100M	1920 x 1080	4:2:2	10 bit	100 Mbps	(VBR)	59.94p, 50p	1 to 60 fps [50 fps] Super Slow: 120 fps [100 fps] (Max. 200 Mbps)	
	FHD 422LongGOP 50M	1920 x 1080	4:2:2	10 bit	50 Mbps	(VBR)	29.97p, 25p, 23.98p, 59.94i, 50i		
AVCHD	PS	1920 x 1080	4:2:0	8 bit	25 Mbps	(VBR)	59.94p, 50p	—	Dolby Audio
	PH	1920 x 1080	4:2:0	8 bit	21 Mbps	(VBR)	23.98p, 59.94i, 50i	—	
	HA	1920 x 1080	4:2:0	8 bit	17 Mbps	(VBR)	59.94i, 50i	—	
	HD PM	1280 x 720	4:2:0	8 bit	8 Mbps	(VBR)	59.94p, 50p	—	
P2 (MXF)	FHD AVC-Intra422	1920 x 1080	4:2:2	10 bit	200 Mbps	(59.94p)	59.94p, 50p	—	24 bit LPCM
	FHD AVC-Intra200	1920 x 1080	4:2:2	10 bit	200 Mbps	(59.94i)	59.94i, 50i	—	
	FHD AVC-Intra100	1920 x 1080	4:2:2	10 bit	100 Mbps	(59.94i)*¹	59.94p, 50p, 59.94i, 50i	—	24 bit /16 bit LPCM
	FHD AVC-LongG50	1920 x 1080	4:2:2	10 bit	50 Mbps	(59.94i) (VBR)	59.94i, 50i	—	24 bit LPCM
	FHD AVC-LongG25	1920 x 1080	4:2:2	10 bit	25 Mbps	(59.94i)*¹ (VBR)	59.94p, 50p, 59.94i, 50i	—	
	FHD AVC-LongG12	1920 x 1080	4:2:0	8 bit	12 Mbps	(59.94i)*¹ (VBR)	59.94p, 50p, 59.94i, 50i	—	16 bit LPCM
	HD AVC-Intra200	1280 x 720	4:2:2	10 bit	200 Mbps	(59.94p)	59.94p, 50p	—	24 bit LPCM
	HD AVC-Intra100	1280 x 720	4:2:2	10 bit	100 Mbps	(59.94p)	59.94p, 50p	—	
	HD AVC-Intra50	1440 x 1080	4:2:0	10 bit	50 Mbps	(59.94i)	59.94i, 50i	—	24 bit /16 bit LPCM
		960 x 720	4:2:0	10 bit	50 Mbps	(59.94p)	59.94p, 50p	—	
	HD AVC-LongG50	1280 x 720	4:2:2	10 bit	50 Mbps	(59.94p) (VBR)	59.94p, 50p	—	24 bit LPCM
	HD AVC-LongG25	1280 x 720	4:2:2	10 bit	25 Mbps	(VBR)	59.94p, 50p	—	
	HD AVC-LongG12	1280 x 720	4:2:0	8 bit	12 Mbps	(VBR)	59.94p, 50p	—	16 bit LPCM

*1: The bit rate increases to two times when recorded in 59.94p or 50p. *2: VFR is supported only in Progressive mode. Square brackets [ ] indicate a system frequency of 50.00 Hz.

Specifications

General

Power:	DC 7.28 V (when the battery is used) DC 12 V (when the AC adaptor is used)
Power Consumption:	26 W (when the LCD monitor is used) 17 W (1080i / 422ALL-I 100M recording, when the LCD monitor is used, no external device connection)
Operating Temperature:	0 °C to 40 °C (32 °F to 104 °F)
Operating Humidity:	10 % to 80 % (no condensation)
Weight:	Body: approx. 1.9 kg (4.19 lb) (body only, excluding lens hood, battery, and accessories) Shooting: approx. 2.3 kg (5.07 lb) (including lens hood, battery, and microphone holder)
Dimensions:	180 mm (W) x 173 mm (H) x 311 mm (D) (7-1/8 inches x 6-13/16 inches x 12-1/4 inches) (excluding protrusion and eye cup)

Camera Unit

Pickup Device:	1.0-type (effective size) MOS solid state image sensor
Effective Pixels:	15,030,000 pixel
Lens:	Optical image stabilizer lens, optical 20x motorized zoom F value: F2.8 to F4.5 Focal length: f=8.8 mm to 176 mm (35 mm eq.: 24.5 to 490 mm) Filter Diameter: 67 mm, ND Filter: Clear, 1/4, 1/16, 1/64 IR Filter: Incorporates the ON/OFF control function Shortest Shooting Distance (M.O.D.): Approx. 10 cm (W), 1.0 m (T) from the front lens
Gain Setting:	L/M/H selector switch −3 dB to 18 dB (adjustable in 1 dB steps), ISO 400 to ISO 12800 [S. GAIN] 24 dB/30 dB/36 dB (assigning to USER button)
Color Temperature:	ATW, ATW LOCK, A ch, B ch, preset 3200 K/preset 5600 K/VAR (2000 K to 15000 K)
Shutter Speed:	• 59.94 Hz SYSTEM MODE 59.94i/59.94p: 1/60 sec. to 1/10000 sec. 29.97p: 1/30 sec. to 1/10000 sec., 23.98p: 1/24 sec. to 1/10000 sec. • 50.00 Hz SYSTEM MODE 50i/50p: 1/50 sec. to 1/10000 sec., 25p: 1/25 sec. to 1/10000 sec.
Shutter Speed: (Slow Shutter)	• 59.94 Hz SYSTEM MODE 59.94i/59.94p: 1 sec. to 1/30 sec., 29.97p: 1 sec. to 1/12 sec. • 50.00 Hz SYSTEM MODE 50i/50p: 1 sec. to 1/25 sec., 25p: 1 sec. to 1/12 sec.
Shutter Speed: (Synchro Scan)	• 59.94 Hz SYSTEM MODE 59.94i/59.94p: 1/60.0 sec. to 1/7200 sec. 29.97p: 1/30.0 sec. to 1/7200 sec., 23.98p: 1/24.0 sec. to 1/7200 sec. • 50.00 Hz SYSTEM MODE 50i/50p: 1/50.0 sec. to 1/7200 sec., 25p: 1/25.0 sec. to 1/7200 sec.
Shutter Open Angle:	3.0 deg to 180.0 deg to 360.0 deg (in 0.5 deg steps)
VFR Frame Rate:	• 59.94 Hz SYSTEM MODE: 1 fps to 60 fps • 50.00 Hz SYSTEM MODE: 1 fps to 50 fps
Super Slow Recording:	1920 x 1080 (FHD) • 59.94 Hz SYSTEM MODE: shooting frame rate 120 fps • 50.00 Hz SYSTEM MODE: shooting frame rate 100 fps
Sensitivity:	[HIGH SENS.] mode F12 (2000 lx, 3200 K, 89.9 % reflect, 2160/59.94p, 1080/59.94i) F13 (2000 lx, 3200 K, 89.9 % reflect, 2160/50p, 1080/50i)
Horizontal Resolution:	2000 TV or higher (UHD: center) 1000 TV or higher (FHD: center)
i.Zoom:	x 32 (FHD), x 24 (UHD)
Digital Zoom:	x 2/ x 5/ x 10

Memory Card Recorder

Recording Media:	SDHC/SDXC memory card, UHS-I/UHS-II UHS Speed Class 3 supported, Video Speed Class V90 supported Please see page 8 for the "Available Memory Card" table.
Recording Slot:	SDXC UHS-II card slot x 2
Recording Pixels:	3840 × 2160 (UHD), 1920 × 1080 (FHD), 1280 × 720 (HD) (AVC-Intra50: 1440 × 1080, 960 × 720)
Recording File Format:	MOV (AVC), MOV (HEVC), AVCHD, P2 MXF
Recording Format:	Please see page 6 for the "Recording Format" table.
Recording Time:	Please see page 8 for the "Recording Time" table.
Two-Slot Functions:	Relay Rec, Simultaneous Rec, Background Rec
Special Rec. Functions:	Pre Rec, Interval Rec, Time Stamp

Digital Video

Quantization:	MOV:	4:2:2 10 bit/4:2:0 8 bit/4:2:0 10 bit (HEVC)
	AVCHD:	4:2:0 8 bit
	P2:	4:2:2 10 bit/4:2:0 10 bit (AVC-intra50)/ 4:2:0 8 bit (AVC-LongG12)
Video Compression:	MOV:	H.264/MPEG-4 AVC High Profile H.265/MPEG-H HEVC Main10 Profile
	P2:	MPEG-4 AVC/H.264 High Profile MPEG-4 AVC/H.264 Intra Profile

Digital Audio

Recording Audio Signal:	MOV:	48 kHz/24 bit, 4 ch, Linear PCM
	AVCHD:	48 kHz/16 bit, 2 ch, Dolby Audio™
	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
Headroom:		12 dB/18 dB/20 dB switchable (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

*This recording time is a reference value for continuous recording. It may increase or decrease depending on the scene and number of clips. The recording time is halved for 60p/50p.

Streaming

Video Compression:	H.264/MPEG-4 AVC High Profile
Video Resolution	3640 x 2160 (UHD), 1920 x 1080 (FHD), 1280 x 720 (HD), 640 x 360, 360 x 180
Streaming Method	Unicast, Multicast
Frame Rate	• 59.94 Hz SYSTEM MODE: 24 fps, 30 fps, 60 fps • 50.00 Hz SYSTEM MODE: 25 fps, 50 fps
Bit Rate	4K (UHD): 75 Mbps, 50 Mbps, 25 Mbps, 12 Mbps, 8 Mbps FHD/HD: 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 OUT:	BNC x 1, SDI REC REMOTE supported 4K (12G/6G), HD (3G/1.5G): 0.8 V [p-p], 75 Ω Output format (4:2:2 10 bit): • 3840 x 2160: 59.94p, 50p, 29.97p, 25p, 23.98p • 1920 x 1080: 59.94p, 50p, 59.94i, 50i, 29.97Psf, 25Psf, 23.98PsF • 1280 x 720: 59.94p, 50p
HDMI OUT :	HDMI x 1, Type A, HDMI REC REMOTE supported, VIERA Link not supported Output format (4:2:2 10 bit): • 3840 x 2160: 59.94p, 50p, 29.97p, 25p, 23.98p • 1920 x 1080: 59.94p, 50p, 59.94i, 50i, 29.97p, 25p, 23.98p • 1280 x 720: 59.94p, 50p

Audio Input/Output

Built-in Microphone:	Stereo microphone
AUDIO INPUT 1/2:	XLR (3-pin) x 2 (INPUT1, INPUT2) Input high impedance, LINE/MIC/MIC+48V (switchable menu) MIC: −40 dBu/−50 dBu/−60 dBu (switchable menu) LINE: +4 dBu/0 dBu (switchable menu)
AUDIO INPUT 3 & 4:	3.5 mm diameter stereo mini jack x 1, unbalance MIC: −40 dBV (0 dB=1 V/Pa, 1 kHz) Plug-in power compatible, supply voltage: 2.5 V ± 0.5 V LINE: −10 dBVz Input impedance: approx. 3 kΩ when plug-in power is ON approx. 20 kΩ when plug-in power is OFF
SDI OUT:	Linear PCM 4 ch
HDMI OUT:	Linear PCM 2 ch/4 ch (switchable menu)
Headphone:	3.5 mm diameter stereo mini jack x 1
Speaker:	20 mm diameter, round x 1

Other Input/Output

TC IN/OUT:	BNC x 1, Used as the input and output (switchable menu) Input: 1.0 V to 4.0 V [p-p] 10 kΩ Output: 2.0 V ± 0.5 V [p-p] low impedance
REMOTE:	2.5 mm diameter super mini jack *The analog control remote controller used with previous Panasonic models may not be used with this device.
LAN:	RJ-45: 1000BASE-T/100BASE-TX/10BASE-T, NDI® HX2 supported
USB 2.0 HOST:	Type-A, 4-pin (5 V, 0.5 A) for Wireless Module (option)
USB 3.2 DEVICE:	USB 3.2 GEN1 Type-C, USB Mass storage function, No USB bus power function
DC IN 12V:	DC 12 V EIAJ Type 4

Monitor/Viewfinder

LCD Monitor:	3.2 type TFT LCD color monitor (3:2), approx. 1,620,000 dots Touch panel, Video display (16: 9) area: approx. 1,370,000 dots
Viewfinder:	0.39 type OLED (organic EL display), approx. 2,360,000 dots, Video display (16: 9) area: approx. 1,770,000 dots

Included Accessories

Battery (AG-VBR59), Battery charger (AG-BRD50), AC adaptor, AC cable, Microphone holder kit, Shoulder strap, Eye cup, Lens hood*, Grip belt* and Operating instructions
(Items marked by an asterisk (*) come already attached to the camera)

Options

Available Memory Card

Format	Bit Rate / Recording Function	Speed Class
MOV	400 Mbps	Video Speed Class V60 or faster
	FHD ALL-I VFR (23.98p)/super slow	
	200 Mbps	Video Speed Class V30 UHS Speed Class 3 or faster
	150 Mbps	
	100 Mbps	
	FHD LongG VFR/super slow	
	FHD ALL-I VFR (59.94p/50p/29.97p/25p)	
	50 Mbps	Video Speed Class V10 UHS Speed Class 1 Speed Class 10 or faster
AVCHD	All	Speed Class 4 or faster
P2	All P2 recording modes supported by the AG-CX370	Video Speed Class V90 or faster

Recording Time

Recording Format			64 GB SDXC/SDHC Memory Card	128 GB SDXC/SDHC Memory Card
MOV (AVC, HEVC)	UHD	400 Mbps	Approx. 20 min.	Approx. 40 min.
		200 Mbps	Approx. 40 min.	Approx. 1 hour 20 min.
		150 Mbps	Approx. 55 min.	Approx. 1 hour 50 min.
		100 Mbps	Approx. 1 hour 20 min.	Approx. 2 hours 40 min.
	FHD	100 Mbps	Approx. 1 hour 20 min.	Approx. 2 hours 40 min.
		50 Mbps	Approx. 2 hours 40 min.	Approx. 5 hours 20 min.
AVCHD	PS		Approx. 5 hours 20 min.	Approx. 11 hours
	PH		Approx. 6 hours	Approx. 12 hours 30 min.
	HA		Approx. 8 hours 30 min.	Approx. 17 hours
	PM		Approx. 17 hours 10 min.	Approx. 35 hours
P2 MXF	AVC-Intra422/AVC-Intra200		Approx. 32 min.	–
	AVC-Intra100*		Approx. 1 hour 4 min.	–
	AVC-Intra50		Approx. 2 hours 8 min.	–
	AVC-LongG50		Approx. 2 hours 8 min.	–
	AVC-LongG25*		Approx. 4 hours 16 min.	–
	AVC-LongG12*		Approx. 8 hours	–

* The recording times listed are for 1080-59.94i/50i or 720-59.94p/50p video formats; the times are halved for 1080-59.94p/50p video formats.

Battery Pack
AG-VBR118G (11,800 mAh)
AG-VBR89G (8,850 mAh)
AG-VBR59 (5,900 mAh)

AG-BRD50
Battery Charger

AG-MC200G
XLR Microphone

AJ-WM50/WM50G
Wireless Module

*Not available in some areas

Connection confirmed Wireless Module
https://pro-av.panasonic.net/en/support/connection_confirmed/server/wireless_module.html

Battery	Voltage/Capacity	Charge Time *	Continuous Shooting Time
AG-VBR59	7.28 V 5900 mAh 43 Wh	Approx. 3 hours 20 min.	Approx. 2 hours 10 min.
AG-VBR89G	7.28 V 8850 mAh 65 Wh	Approx. 4 hours	Approx. 3 hours 20 min.
AG-VBR118G	7.28 V 11800 mAh 86 Wh	Approx. 4 hours 40 min.	Approx. 4 hours 40 min.

*When using bundled battery charger.

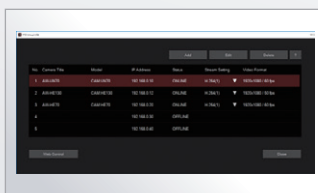

AK-HRP1010GJ
Remote Operation Panel (ROP)
1/4 rack size, supports PoE and IP control.

CX ROP App
Free Software
CX Series Memory Camera Recorder Remote Operation Panel App

PTZ Virtual USB Driver
Free Software
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/>.

Media Production Suite
Free Software (paid plug-ins available)
Using a PC, several PTZ cameras or CX series camera recorders can be centrally managed.
CX series camera recorders will be supported through version upgrades. Please refer to the website for details such as support timing. <https://pro-av.panasonic.net/en/software/mps/>.
CX series camera recorders do not support all the features of the Media Production Suite.
It is also not possible to view the video footage on a PC screen.

Panasonic®

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

*Specifications are subject to change without notice.   SP-C-CX370ENZ1