SONY

PXW-X200

Solid-State Memory Camcorder

The PXW-X200 is a high-quality handy camcorder with three 1/2 inch-type Full HD Exmor™ CMOS sensors. With these newly developed image sensors, high sensitivity and low noise have been achieved. Independent focus, zoom, and iris rings enable precise shooting in many circumstances. With its high-quality XAVC recording capability, the PXW-X200 helps to boost user creativity in many different applications, including news gathering and documentary production.

Added to this, the PXW-X200 has a built-in wireless operation capability, and also offers remote control, file transfer, monitoring via smartphones and tablet devices, and streaming[*1].

*1 Streaming function requires firmware upgrade.

XDCAM HD   Exmor FULL HD 3CMOS   XAVC   MPEG HD422   MPEG HD   MPEG IMX   DVCAM   SxS

New 1/2 inch-type 3CMOS Image Sensors

The PXW-X200 incorporates three ½ inch-type Exmor Full HD (1920x1080) CMOS sensors to achieve high resolution, high sensitivity, low noise, and a wide dynamic range. With these image sensors, the PXW-X200 achieves a high sensitivity of F12 at 1080/59.94i and F13 at 1080/50i – essential levels for professionals shooting under challenging lighting conditions.

New 1/2 inch-type 17x Zoom Lens

The PXW-X200 has a newly developed 17 times zoom lens. This compact body lens can zoom from 29.3 mm to 499 mm (35 mm equivalent), which is a powerful capability for event shooting and many other applications. The lens also has focus, zoom, and iris-independent manual control rings. Each function has a physical end stop and absolute marking which enable precise adjustment.

3.5 inch-type QHD (960x540) Color LCD Panel

The PXW-X200 is equipped with a large, easy-to-read, 3.5 inch-type QHD color LCD panel which helps to achieve precise focus control. This LCD panel also displays a range of information in support of shooting operations.

Slow & Quick Motion

A Slow & Quick Motion function is available on the PXW-X200. The recording frame rate can be selected from 1 frame per second (fps) up to 60 fps both in 1080P and 720P format to create high-quality slow motion or quick motion images. *2

*2 The selectable frame rate depends on the CODEC selected in the camera.

File Transfer and Streaming

Users can simply attach the supplied Wireless LAN module to activate the wireless function on the PXW-X200. And by connecting with separately sold internet routers, proxy or high-resolution files can be transferred to a cloud server, and the editing process can be started while location shooting continues.

The PXW-X200 also has a streaming capability*3. By attaching a separately sold LTE USB module*4, live video and audio can be streamed, watched, and recorded at a remote location.

*3 A firmware version upgrade is required to activate this function (early 2015).

*4 This function works only with compatible modules.

NFC

A Near Field Communication (NFC*5) function allows easy, one-touch wireless LAN connection to a smartphone or tablet device without manual setting of the network parameters. A Content Browser Mobile*6 application enables users to monitor the currently shot video and to wirelessly control camcorder settings such as focus, zoom, iris, white balance, REC START/STOP, and more.

*5 NFC allows close-range wireless communication between the PXW-X200 and an NFC-equipped smartphone or tablet device.

*6 This application can be downloaded from the Google Play Store or App Store.

Multi-format Recording

The PXW-X200 has an XAVC recording capability. It uses 4:2:2 10-bit sampling, efficiently compressing Full HD (1920x1080) resolution images using the MPEG-4 AVC/H.264 CODEC. In XAVC, the user can select intra-frame compression at a maximum of 112 Mbps or high-efficiency long GOP compression at 50/35/25 Mbps.

In addition to XAVC intra/long GOP, the PXW-X200 records in MPEG-2 HD422 at 50 Mbps, MPEG-2 HD420 at 35/25 Mbps, MPEG IMX at 50 Mbps and DV at 25 Mbps. Depending on requirements, there is a flexible choice of CODEC. In XAVC long CODEC, 1080/59.94P or 50P can be selected as well as 1080/59.94i, 50i, etc.

Four channels of 24-bit 48 kHz LPCM audio is recorded in XAVC and MPEG-2 HD422, while four channels of 16-bit 48 kHz LPCM is recorded in MPEG-2 HD420.

Flexible Choice of Recording Media

The PXW-X200 uses high-speed and reliable SxS PRO+, SxS PRO, and SxS-1 memory cards for its recording media, developed specifically for professional video creation applications. These SxS memory cards boast high-speed data transfer, which accelerates the video production workflow. By combining the PXW-X200 with SxS memory cards, users can access a salvage function to restore content[7], even if a file is damaged by power loss or memory card disconnection during recording.

Furthermore, XQD cards, Memory Sticks[8], and SDHC cards[8] can be used with appropriate card adaptors.

*7 There is no warranty for content restoration.

*8 Operation with all memory cards is not assured.

Simultaneous Recording[9]

The PXW-X200 is equipped with two SxS memory card slots. With two memory cards, when the user activates the Simultaneous Recording function, content is recorded onto two memory cards simultaneously, and backup copies of the memory cards can be automatically created.

*9 A firmware version upgrade is required to activate this function (early 2015).

Cache Recording

Once activated, the PXW-X200 continuously streams audio and video into its internal memory. When the REC START/STOP button is pressed, content buffered in the camcorder's memory is recorded onto the memory card at the start of the recording clip. The caching period can be set at up to 15 seconds. This function is useful when shooting a developing situation such as during news gathering, so as not to miss a critical moment.

Continuous Recording

By activating the Continuous Recording function, multiple clips can be recorded as a single clip, which makes it easy to ingest the file to a non-linear editing (NLE) system.

SDI, HDMI, and i.LINK

The SDI interface allows the PXW-X200 to interface with other professional products. The SDI connector is 3G, HD, and SD switchable and it outputs 1080/59.94P, 50P, 59.94i, 50i, 720/59.94P, 50P, or SD signals. The PXW-X200 has a simple signal conversion function, and an 1080/59.94i (50i) signal can be output for monitoring while the camcorder is set to 1080/59.94P (50P).

The PXW-X200 can also be connected via HDMI to HD displays to perform monitoring. The i.LINK connector can be used for HDV when SP 1440 (FAT) mode is selected and for DV when DVCAM (FAT) mode is selected.

Timecode & Genlock

The PXW-X200 is equipped with timecode input/output (selectable) and genlock input interfaces. These interfaces are useful when shooting with multiple camcorders. The video signal timing and the timecode can be synchronized among the camcorders, and this helps when assembling video clips from multiple camcorders in the editing process.

Multi-interface (MI) Shoe[10]

An accessory attached to the multi-interface (MI) shoe can be controlled by the PXW-X200 if the optional LCD video light, HVL-LBPC, or the optional wireless microphone system, UWP-D series, is attached to the MI shoe. With the video light, the light power can be switched on and off from the camcorder. And for the wireless receiver, the power is supplied from the camcorder, and the audio signal is input from the receiver to the camcorder without connecting audio cables.

*10 The MI shoe will be activated by a firmware version upgrade which is scheduled for early 2015.

Specifications

	PXW-X200
Mass	Approx. 2.4 kg (5 lb 4.7 oz) (body)
	Approx. 2.8 kg (6 lb 2.8 oz) (with lens hood, eyecup, BP-U30 battery, a SxS memory card)
Dimensions (W x H x D)*[1]	168×161×331 mm (6 5/8 x 6 3/8 x 13 1/8 inches) (without protrusions)
Power Requirements	DC12 V
Power Consumption	Approx. 18 W (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off)
	Approx. 23 W (while recording with LCD On, EVF Off, HD-SDI output and Wireless function On)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Storage Temperature	-20°C to +60°C (-4°F to +140°F)
Battery Operating Time	With battery pack BP-U90: approx. 4.5 hours (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off)
	With battery pack BP-U60: approx. 3 hours (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off)
	With battery pack BP-U30: approx. 1.5 hours (while recording with LCD Off, EVF On, I/O Select Off and Wireless function Off)

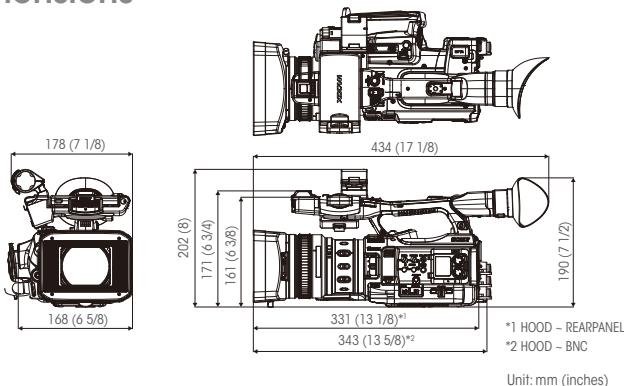| Recording Format (Video)		
	<exFAT>	XAVC-I mode: CBG, max. 112Mbps, MPEG-4 H.264/AVC - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P, 50P XAVC-L 50 mode: VBR, max. 50Mbps, MPEG-4 H.264/AVC - 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P, 50P XAVC-L 35 mode: VBR, max. 35Mbps, MPEG-4 H.264/AVC - 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P XAVC-L 25 mode: VBR, max. 35Mbps, MPEG-4 H.264/AVC - 1920x1080/59.94i, 50i MPEG HD422 mode: CBR, 50Mbps, MPEG-2 422P@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P, 50P, 29.97P, 23.98P, 25P MPEG HD420 HQ mode: VBR, max. 35Mbps, MPEG-2 MP@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1440x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P,50P,23.98P(2-3 Pull Down) DVCAM mode: CBR, 25Mbps, DVCAM - 720x480/59.94i, 29.97PsF - 720x576/50i, 25PsF
	<UDF>	MPEG HD422 mode: CBR, 50Mbps, MPEG-2 422P@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P, 50P, 29.97P, 23.98P, 25P MPEG HD420 HQ mode: VBR, max. 35Mbps, MPEG-2 MP@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1440x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P,50P,23.98P(2-3 Pull Down) MPEG IMX50 mode: CBR, 50Mbps, MPEG-2 422P@ML Intra - 720x486/59.94i, 29.97PsF - 720x576/50i, 25PsF DVCAM mode: CBR, 25Mbps, DVCAM - 720x480/59.94i, 29.97PsF - 720x576/50i, 25PsF
	<FAT>	MPEG HD420 HQ mode: VBR, max. 35Mbps, MPEG-2 MP@HL - 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1440x1080/59.94i, 50i, 29.97P, 23.98P, 25P - 1280x720/59.94P,50P, 29.97P, 25P, 23.98P MPEG HD420 SP mode: CBR, 25Mbps, MPEG-2 MP@H-14 - 1440x1080/59.94i, 50i, 23.98P(2-3 Pull Down) DVCAM mode: CBR, 25Mbps, DVCAM - 720x480/59.94i, 29.97PsF - 720x576/50i,25PsF Proxy: H.264 - 1280x720: 9Mbps - 640x360: 3Mbps - 480x270: 1Mbps - 480x270: 500kbps
Recording Format (Audio)	<exFAT>	XAVC-I mode: LPCM 24-bit, 48kHz, 4ch XAVC-L mode: LPCM 24-bit, 48kHz, 4ch MPEG HD422 mode: LPCM 24-bit, 48kHz, 4ch MPEG HD420 HQ mode: LPCM 16-bit, 48kHz, 4ch DVCAM mode: LPCM 16-bit, 48kHz, 4ch
	<UDF>	MPEG HD422 mode: LPCM 24-bit, 48kHz, 4ch MPEG HD420 HQ mode: LPCM 16-bit, 48kHz, 4ch IMX50 mode: LPCM 24/16-bit, 48kHz, 4ch DVCAM mode: LPCM 16-bit, 48kHz, 4ch
	<FAT>	MPEG HD420 HQ mode: LPCM 16-bit, 48kHz, 4ch MPEG HD420 SP mode: LPCM 16-bit, 48kHz, 4ch DVCAM mode: LPCM 16-bit, 48kHz, 2ch Proxy: AAC-LC, 48kHz, 128kbps, 2ch

	PXW-X200
Lens	
Lens Mount	Fixed
Zoom Ratio	17x (optical), servo/manual
Focal Length	f = 5.6-95.2 mm (35 mm equivalent: 29.3-499 mm)
Iris	F1.9-F16 and close, auto/manual selectable
Focus	800 mm to ∞ (Macro Off), 50 mm to ∞ (Macro On, Wide), 800 mm to ∞ (Macro On, Tele), AF/MF/Full MF selectable
Image Stabilizer	On/Off selectable, shift lens
Filter Diameter	M77 mm, pitch 0.75mm
Camera Section	
Imaging Device (Type)	3-chip 1/2-inch type "Exmor" Full HD CMOS
Effective Picture Elements	1920 (H) x 1080 (V)
Built-in Optical Filters	Clear, 1: 1/8ND, 2: 1/64ND
Sensitivity	F12 (typical, 1920 x 1080/59.94i mode) F13 (typical, 1920 x 1080/50i mode)
S/N Ratio	58dB (Y) (typical)
Shutter Speed	1/32 sec to 1/2,000 sec
Slow & Quick Motion Function	XAVC Intra/Long mode: - 1080P: 1-30 and 60 fps in NTSC setting, 1-25 and 50 fps in PAL setting - 720P: 1-60 fps in NTSC setting, 1-50 fps in PAL setting MPEG HD422 mode: - 1080P: 1-30 fps in NTSC setting, 1-25 fps in PAL setting - 720P: 1-60 fps in NTSC setting, 1-50 fps in PAL setting MPEG HD420 HQ mode: - 1080P: 1-30 fps - 720P: 1-60 fps
White Balance	Preset (3200K), Memory A, Memory B/ATW
GPS*[2]	Yes
Wireless functions	Yes
NFC	Yes
Input/Output	
Audio Input	XLR-type 3-pin (female) (x2)
HDMI Output	Type A (x1)
SDI Output	BNC (x1), 3G/HD/SD selectable
Composite Output /GENLOCK-IN	BNC (x1)
Audio Output	A/V multi connector (x1)
USB	USB device, mini-B (x1)
TC in/out	BNC (x1)
Lens Remote	8-pin, round (x1)
DC Input	DC jack (x1)
Shoe	Multi Interface Shoe (x1)
Headphone Output	Stereo mini jack ø3.5mm (x1)
Option	4-pin Type A (x1)
Monitoring	
Viewfinder	0.45-inch type color LCD: 852 (H) x 480 (V), 16:9
LCD	3.5-inch type color LCD monitor: 960 (H) x 3 (RGB) x 540 (V), 16:9
Built-in Microphone	
Built-in Microphone	Omni-directional stereo electret condenser microphone
Media	
Type	ExpressCard/34 slot (2) (for XAVC/MPEG/IMX/DV) SD/SDHC (1) (for Proxy)
Supplied Accessories	
	Lens hood (1), pre-installed to the Camcorder EVF large eyecup (1), pre-installed to the Camcorder Infrared Remote Commander (1) Wireless LAN module IFU-WLM3 (1) Accessory shoe kit (1) Battery pack BP-U30 (1) Battery charger BC-U1 (1) Power Code (1) USB cable (1) Audio connecting cable (1) Shoulder strap (1) Lithium battery (CR2032 for data backup) (1), Pre-installed to the Camcorder Lithium battery (CR2025 for the IR Remote Commander) (1), Pre-installed to the IR Remote Commander Warranty booklet (1) "Before Using this Unit" (1) CD-ROM "Operating instructions" (1)

*1 The values for dimensions are approximate.
*2 A firmware version upgrade is required to activate this function (early 2015).

Available Accessories

BP-U30/BP-U60/ BP-U60T/BP-U90
Rechargeable Battery pack

BC-U1/BC-U2
Battery Charger/ AC Adaptor

HVL-LBPC
Battery Video Light

UWP-D11/UWP-D12
Wireless Microphone Package

SMAD-P3
MI Shoe Mount Adaptor
* required for cable-free operation with UWP-D11/UWP-D12

ECM-VG1
Electret Condenser Microphone

ECM-MS2
Electret Condenser Microphone

ECM-673
Electret Condenser Microphone

SBP-128B/SBP-64B
SxS PRO+ Memory Cards

SBS-64G1A/SBS-32G1A
SxS-1 Memory Cards

QD-G128A/QD-G64A/ QD-G32A
XQD G Series Memory Cards

SF-32UX2/SF-16UX/ SF-8UX
SDHC Memory Card

MS-HX32B/MS-HX16B/ MS-HX8B
Memory Stick PRO-HG Duo™

QDA-EX1
XQD ExpressCard Adaptor

MEAD-SD02
SD Card Adaptor for XDCAM Series

MEAD-MS01
Memory Stick Adaptor for XDCAM EX

Dimensions

178 (7 1/8)
168 (6 5/8)
202 (8)
171 (6 3/4)
161 (6 3/8)
190 (7 1/2)
434 (17 1/8)
331 (13 1/8)*[1]
343 (13 5/8)*[2]

*1 HOOD ~ REARPANEL
*2 HOOD ~ BNC

Unit: mm (inches)