

SONY



PXW-X320

Solid-State Memory Camcorder

XAVC

MPEG HD422

MPEG HD

MPEG IMX

DVCAM

Exmor
FULL HD 3CMOS

SxS

Solid-State Memory Camcorder



The successor to Sony's popular PMW-320, the PXW-X320 adds the dynamic range of 10-bit video and 24-bit audio recording with Sony's acclaimed XAVC[®] codec. You get the spectacular performance of XAVC Intra recording at over 100 Mbps, along with money-saving XAVC Long, MPEG HD422[®], MPEG HD[®], MPEG IMX[®], and DVCAM[®] recording. The camera retains the virtues of its predecessor, including true shoulder-mount ergonomics and three 1/2"-type Full HD image sensors with Sony's Exmor[®] CMOS technology. For wireless streaming, file transfers and remote control, the camera also accepts Sony's CBK-WA101 wireless adaptor, sold separately. You get fast delivery of content to broadcast stations and cloud services

Clean, clear pictures

Three 1/2"-type Full HD sensors each have 1920 x 1080 resolution, for superlative image texture and detail. Sony's Exmor® CMOS design enhances your pictures with high sensitivity (F11 at 59.94 Hz / F12 at 50 Hz), low noise (60 dB), and wide dynamic range.

In addition to conventional noise reduction, the PXW-X320 includes a 3D system that detects and corrects noise using vertical, horizontal and time axes, correlating characteristics among video frames. This helps deliver the best signal-to-noise ratio of any 1/2"-type Full-HD shoulder camcorder (as of April 1, 2015).

XAVC codec and much more

The PXW-X320 offers a robust menu of codecs and bitrates, including master-quality XAVC® Intra HD recording at over 100 Mbps. You get the phenomenal image fidelity of 10-bit grayscale and Intra frame only compression. And that's just one of six available codecs with MXF file wrappers and data rates as low as 25 Mbps.

Format	Resolution	Bitrate	File System	59.94i	50i	29.97P	25P	23.98P	59.94P	50P
XAVC Intra	1920x1080	100M	exFAT	✓	✓	✓	✓	✓	✓	✓
	1280x720	100m	exFAT						✓	✓
XAVC Long	1920x1080	50M	exFAT	✓	✓	✓	✓	✓		
		35M	exFAT	✓	✓	✓	✓	✓		
		25M	exFAT	✓	✓					
	1280x720	50M	exFAT						✓	✓
MPEG HD422	1920x1080	50M	exFAT/UDF	✓	✓	✓	✓	✓	✓	✓
	1280x720	50M	exFAT/UDF			✓	✓	✓	✓	✓
MPEG HD (420)	1920x1080	35M	exFAT/FAT/UDF	✓	✓	✓	✓	✓		
		1440x1080	35M	exFAT/FAT/UDF	✓	✓	✓	✓		
	1280x720	35M	exFAT/FAT/UDF					✓	✓	✓
		1440x1080	25M	FAT				✓	✓	✓
MPEG IMX	720x512	50M	exFAT/UDF	✓		✓				
	720x698	50M	exFAT/UDF		✓		✓			
DVCAM	720x480	25M	exFAT/FAT/UDF	✓		✓				
	720x480	25M	exFAT/FAT/UDF		✓		✓			

Color LCD Viewfinder

Sony provides an easy-to-read 3.5" color LCD viewfinder (viewable area, measured diagonally). Because focus is especially critical in HD, the viewfinder offers high resolution: 960 x 540 pixels. You can flip up the viewfinder cover for easy viewing during tripod shots.



Wireless streaming and file transfers

If you can't wait for the whole world to see what you're seeing, the PXW-X320 streams remarkably high quality at surprisingly low cost. Just attach the CBK-WA101, sold separately. Sony's unique Quality of Service (QoS)* technology dramatically improves the clarity that's possible on a single, affordable cellular channel (via software update expected June 2015). You can also stream conventional MPEG-TS. And transfer proxy or full-res files with bit-for-bit accuracy. And control your camcorder, right from an Android® or iOS® tablet or smartphone, using our free Content Browser Mobile app.

*2 PWS-100RX1 server, sold separately required for QoS streaming.

Enhanced Flash Band Reducer

Strobes and camera flashes can leave unwanted horizontal bright streaks across your image. Sony's improved algorithm more effectively detects and corrects flash banding. At your option, you can disable the feature and fix flash banding in post with tools like Sony's Content Browser.



Flash Band Reducer ON



Flash Band Reducer OFF

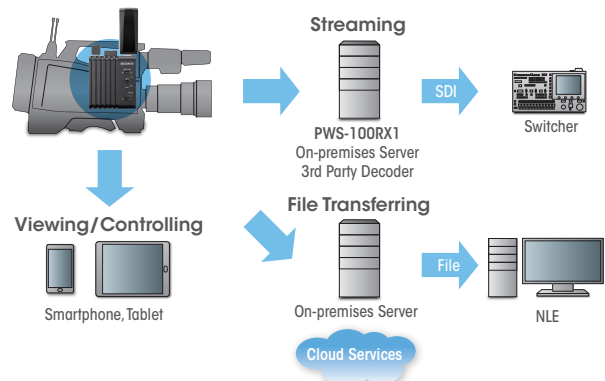
Customizable menu

When the lights are prepared and the talent is ready, you don't want to waste time diving through camera menus. That's why the PXW-X320 offers User Menu, a feature typically reserved for high-end camcorders. You can organize favorite menu items for fast recall, much like bookmarking favorite web pages in your browser.

Powerful connections

The full set of interfaces includes a pair of SDI outputs, enabling the director and camera operator to check shots on separate monitors. HDMI® output enables connection to consumer televisions.

You can input and output signals via the i.LINK® interface for HDV, in SP 1440 (FAT) mode, and for DV, in DVCAM (FAT) mode.



Specifications

	PXW-X320
General	
Weight	Approx. 7.9 lb (body only without lens, VF, Mic)
	Approx. 3.4 kg (body only without lens, VF, Mic)
Dimensions (W x H x D)*1	5 x 10 5/8 x 13 1/8 inches (124 x 269 x 332 mm) (excluding protrusions, body only)
Power Requirements	DC 12 V
Power Consumption	Approx. 25W (with viewfinder, lens and microphone while recording)
Operating Temperature	32° F to 104° F (0° C to 40° C)
Storage Temperature	-4° F to +140° F (-20° C to +60° C)
Continuous Operating Time	Approx. 194 min with BP-L80S
Recording Format (Video)	XAVC - XAVC-I mode: CBG, 112Mbps max., MPEG-4 AVC/H.264 - XAVC-L50 mode: VBR, 50Mbps, MPEG-4 AVC/H.264 - XAVC-L35 mode: VBR, 35Mbps, MPEG-4 AVC/H.264 - XAVC-L25 mode: VBR, 25Mbps, MPEG-4 AVC/H.264 MPEG-2 Long GOP - HD 422 mode: CBR, 50 Mbps max., MPEG-2 422P@HL - HQ mode: VBR, 35 Mbps max., MPEG-2 MP@HL - SP mode: CBR, 25 Mbps, MPEG-2 MP@H-14 - SD mode : MPEG IMX, DVCAM
Recording Format (Audio)	<exFAT> - XAVC-I mode: LPCM 24 bits, 48 kHz, 4 channels XAVC-L mode: LPCM 24 bits, 48 kHz, 4 channels HD 422 50 mode: LPCM 24 bits, 48 kHz, 4 channels HD 422 HQ mode: LPCM 16 bits, 48 kHz, 4 channels SD MPEG IMX mode: LPCM 16/24 bits, 48 kHz, 4 channels SD DVCAM mode: LPCM 16 bits, 48 kHz, 4 channels <UDF> - HD 422 50 mode: LPCM 24 bits, 48 kHz, 4 channels - HD 422 HQ mode: LPCM 16 bits, 48 kHz, 4 channels - SD MPEG IMX mode: LPCM 16/24 bits, 48 kHz, 4 channels - SD DVCAM mode: LPCM 16 bits, 48 kHz, 4 channels <FAT> - HD mode: LPCM 16 bits, 48 kHz, 4 channels - SD DVCAM mode: LPCM 16 bits, 48 kHz, 2 channels
Lens	
Lens Mount	Sony 1/2-inch type bayonet mount
Zoom Ratio	16x (optical), servo/manual (AF lens for PXW-X320)
Focal Length	f = 5.8 mm to 93 mm (equivalent to 31.4 mm to 503 mm on 35 mm lens)
Iris	F1.9 to F16 and Close, Auto/Manual selectable
Focus	AF/MF/Full MF Selectable 800 mm to ∞ (MACRO OFF) 50 mm to ∞ (MACRO ON, Wide) 782 mm to ∞ (MACRO ON, Tele)
Filter Diameter	M82 mm, pitch 0.75 mm (on lens)
Input/Output	
Genlock Input	BNC (x1)
Timecode Input	BNC (x1)
Audio Input	XLR-type 3-pin (female) (x2), Line/Mic/Mic +48 V selectable
Mic Input	XLR-type 5-pin
SDI Output	BNC (x2), HD-SDI/SD-SDI selectable
Video Output	BNC (x1) HD-V or Analog composite
Audio Output	XLR-type 5-pin

	PXW-X320
Timecode Output	BNC (x1)
Earphone Output	Stereo mini jack (x1)
Speaker Output	Monaural
DC Input	XLR-type 4-pin
DC Output	4-pin
Lens	12-pin
Remote	8-pin
Light	2-pin
i.LINK	IEEE 1394, 6-pin (x1), HDV (HDV 1080i)/DVCAM stream input/output*2, S400
USB	USB device B type (x1), host A type (x1)
HDMI	A type (x1)
Camera Section	
Imager	3-chip 1/2-type "Exmor" Full HD CMOS
Effective Picture Elements	1920 (H) x 1080 (V)
Optical System	F1.6 prism system
Built-in Optical Filters	1: Clear, 2: 1/4ND, 3: 1/16ND, 4: 1/64ND
Shutter Speed (Time)	1/60 sec to 1/2,000 sec + ECS (Extended Clear Scan)
Shutter Speed (Slow Shutter (SLS))	2, 3, 4, 5, 6, 7, 8, 16, 32, 64-frame accumulation
Slow & Quick Motion Function	720p: Frame rate selectable from 1 fps to 60 fps 1080p: Frame rate selectable from 1 fps to 30 fps
Sensitivity (2000 lx, 89.9% reflectance)	F11 (typical) (1920 x 1080/59.94i mode) F12 (typical) (1920 x 1080/50i mode)
Minimum Illumination	0.04 lx (typical) (1920 x 1080/59.94i mode, F1.6, +24 dB gain, with 64-frame accumulation)
White Balance	Preset (3200K), Memory A, Memory B/ATW
Gain Selection	-3, 0, 3, 6, 9, 12, 18, 24 dB
S/N Ratio	60 dB (V) (typical)
Horizontal Resolution	1,000 TV lines or more (1920 x 1080i mode)
Viewfinder	
	3.5-inch*3 type color LCD monitor: 960 (H) x 540 (V), Quarter HD Size
Other Equipment	
Built-in LCD Monitor	Black & White LCD (Audio level, TC, battery and media remaining capacity)
Built-in Speaker	1
Supplied Accessories	
	Viewfinder (1) Shoulder strap (1) Stereo microphone (1) Wind-screen (1) Cold shoe kit (1) Lens mount cap (1) Flange back adjustment chart (1) Auto focus lens (1) Before Using this Unit (1) CD-ROM: Operating Instructions (English) Operating Instructions (Japanese)

*1 The values for dimensions are approximate.

*2 HDV/ DV stream input/output are available only in FAT mode. Depending on the connected products, it may not be recorded correctly.

*3 Viewable area measured diagonally.

Optional Accessories



SBP-128C
SxS Memory Card Series



**MEAD-MS01/SD02
QDA-EX1**
Media Adapters for
MS/SD Card and XQD



CBK-WA101
Wireless Adapter



CBK-CE01
50-pin Interface Unit and
Digital Extender Option



CA-FB70/TX70
System Camera Configuration
Units



DWR-S02D
Digital Wireless Receiver



BKW-401
Viewfinder Rotation Bracket



CBK-SP01
Optional Soft Shoulder Pad



HDFV-L750
LCD Viewfinder



**RM-B170/
RCP-1001/1501**
Remote Control Unit



BP-L80S
Rechargeable Lithium-ion
Battery Pack



ECM-673/678/680S
Shotgun-type Electret
Condenser Microphone



SBAC-US30
SxS Card Reader/Writer



SBAC-UT100
Multi SxS Card Reader/Writer



VCT-14/VCT-U14
Tripod Attachment

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