

SONY



PXW-X180

PXW-X160

1/3-type 3CMOS Solid-state Memory Camcorder

The PXW-X180 and PXW-X160 are the latest addition to the Sony XDCAM™ Series of professional camcorders. It features three 1/3-type Full HD Exmor® CMOS sensors and a newly developed 25x optical zoom G Lens that extends from 26 mm wide angle. The PXW-X180 and PXW-X160 can record in XAVC Intra and Long GOP, enabling 10-bit sampling for high-definition recordings with rich tonal expression, as well as MPEG HD422 at 50 Mbps, a format widely preferred by today's broadcasters and production houses. It can also record in MPEG HD420 at 35 Mbps, AVCHD™, and DV formats.

This advanced camcorder has been created to satisfy the needs of broadcast stations, production houses, and independent video creators, with performance and features that are ideally suited for news, documentaries, events, and more.

The PXW-X160 differs from the PXW-X180 in the omission of features such as wireless functionality, NFC, and GPS, effectively lowering the price point while maintaining the same high level of performance.

XDCAM

XAVC

MPEG HD422

AVCHD
Progressive

G
Sony Lens G

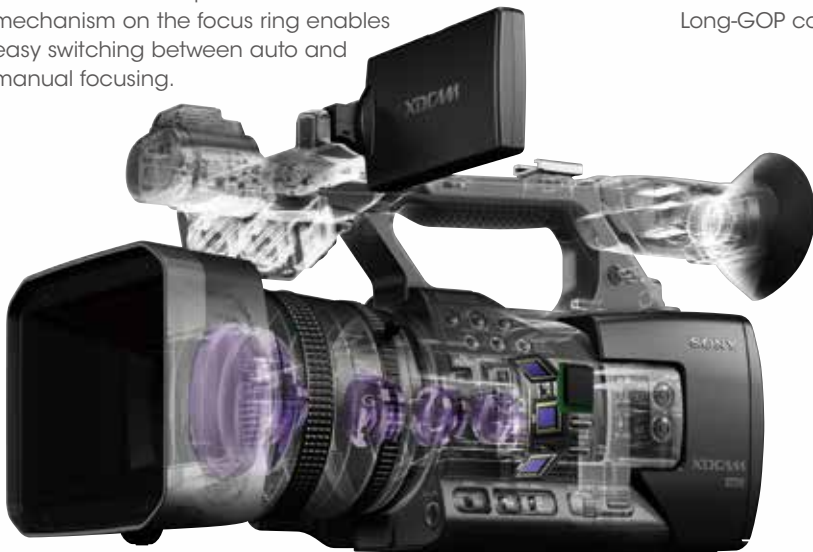
Exmor
3CMOS Sensors

WiFi
CERTIFIED



Newly developed 25x optical zoom G Lens with 26 mm wide angle

This new lens delivers uncompromised Sony G Lens quality and a 26 mm angle of view at the wide end of its 25x zoom range (35 mm equivalent: 26 mm to 650 mm). That's more than enough range for a wide variety of shooting situations. Independent manual zoom and focus rings with end-stop and iris control are provided, and a slide mechanism on the focus ring enables easy switching between auto and manual focusing.



Innovative Sony image sensor, image processor, and lens achieve outstanding image quality

Sony's Exmor™ 3CMOS Sensor system provides independent 1/3-type CMOS image sensors for the red, blue, and green color channels, each with 2.07 effective megapixels (16:9). The result is high resolution and sensitivity that contribute to superior color reproduction. An advanced image processor that features sophisticated noise reduction and distortion compensation is instrumental in delivering superb detail and texture reproduction, with image quality settings rivaling high-end broadcast camcorders.

Compatible with XAVC and a range of other recording formats

In addition to XAVC Intra/Long GOP, the PXW-X180 and PXW-X160 can record in MPEG2, AVCHD, and DV format. The MXF file format is used for XAVC recording, efficiently compressing full HD (1920 x 1080) resolution using the MPEG-4 AVC/H.264 codec. Image sampling is 4:2:2 10-bit with Intra-frame compression at 112 Mbps, or high-efficiency Long-GOP compression at 50/35/25 Mbps.



Support for SxS, XQD, and SD memory cards plus Memory Stick

To provide compatibility with a variety of workflows, the PXW-X180 and PXW-X160 feature two SxS memory card slots for high-speed read/write capability. An XQD card adaptor allows recording to XQD memory cards, and an SD card adaptor enables recording to SD memory cards for maximum economy when shooting for extended periods.



Overexposed



Optimum Exposure

Fine aperture control from 1/4 to 1/128 makes it easy to dial in perfect exposure for a wide range of scenes.

Variable ND filter

The PXW-X180 and PXW-X160 are the first professional Sony camcorders to feature a continuously variable ND filter. A new filter device that electronically controls density enables continuous adjustment from 1/4 ND to 1/128 ND via a simple dial operation. In conjunction with iris setting that controls depth of field and brightness, this advanced filter facilitates shooting techniques such as the use of slow shutter in daylight and other bright conditions. For operators who prefer the conventional ND selector interface, the PXW-X180 and PXW-X160 feature a dual ND filter control mechanism that provides both continuous electronic control and the standard four-position switch.



Wireless functions*1 for file transmission and remote control (PXW-X180 only)

Near Field Communication (NFC*2) functions allow easy, one-touch wireless LAN connection to a smartphone or tablet. The Content Browser Mobile*3 application enables confirmation of the angle of the shot before shooting, monitor recording, and remote operation of the camcorder (field angle/white balance/iris, etc.). The use of mobile routers (sold separately) and other mobile devices also allows transmission of files after shooting. In addition, lightweight proxy video files can be generated separately from the main line recording and recorded to SD cards for quick sharing of content over low-bandwidth mobile networks.

*1. Wireless operation cannot be guaranteed with all smartphones and tablet devices.

*2. NFC, or Near Field Communication, allows close-range wireless communication between the PXW-X180 and an NFC equipped smartphone or tablet device.

*3. The required Content Browser Mobile smartphone application can be downloaded from the Google Play Store or Apple App Store. Version X.X.X or later is required.



3.5-type LCD panel and 0.5-type OLED viewfinder

The PXW-X180 and PXW-X160 are equipped with a 3.5-type QHD LCD panel (960 x 540 xRGB, 16:9) that provides easy viewing in a wide range of lighting conditions. Both models also feature a 0.5-type OLED viewfinder (1024 x 768 xRGB, 4:3). High resolution makes precise manual focus easy. Compared to LCOS devices, there is no color breakup and viewing comfort is significantly improved.



Multi-Interface Shoe

Compatible accessories attached to the Multi-Interface (MI) Shoe can be controlled from the PXW-X180 or PXW-X160. The HVL-LBPC video light, for example, can be switched on and off from the camcorder. Power and audio connections for a UWP-D11 or UWP-D12 wireless microphone receiver are made via the MI Shoe, minimizing the need for extra batteries and additional cabling.



Specifications

	PXW-X180	PXW-X160																													
Mass	Approx. 2.7 kg (body) Approx. 510.15.2 oz (body) Approx. 3.2 kg (with lens hood (1), eyecup (1), battery pack BP-U30 (1), SxS memory card(1)) Approx. 7.1b 0.9 oz (with lens hood (1), eyecup (1), battery pack BP-U30 (1), SxS memory card (1))																														
Dimensions (W x H x D)*1	191.5 x 201.5 x 412 mm (Approx. 7.5 8 x 8 x 16 1/4 in.) (without protrusions)																														
Power Requirements	DC19.5 V (AC Adaptor), DC14.4 V (battery pack)																														
Power Consumption	Approx. 19.9 W (while recording with LCD Off, EVF On when the external device connector is not used.) Approx. 20.8 W (while recording with LCD On, EVF On when the external device connector is used.)																														
Operating Temperature	0°C to 40°C (32°F to 104°F)																														
Storage Temperature	-20°C to +60°C (-4°F to 104°F)																														
Battery Operating Time	With battery pack BP-U90: approx. 4 hours, 00 minutes (While recording with LCD Off, EVF On when the external device connector is not used.) With battery pack BP-U60: approx. 2 hours, 35 minutes (While recording with LCD Off, EVF On when the external device connector is not used.) With battery pack BP-U30: approx. 1 hour, 15 minutes (While recording with LCD Off, EVF On when the external device connector is not used.)																														
Recording Format (Video)	<table border="1"> <tr> <td>XAVC-Intra 1920x1080</td> <td>59.94i: 111Mbps max, 50i: 112Mbps max, 29.97P: 111Mbps max, 25P: 112Mbps max, 23.98P: 89Mbps max</td> </tr> <tr> <td>XAVC-Intra 1280x720</td> <td>59.94P: 111Mbps max, 50P: 112Mbps max</td> </tr> <tr> <td>XAVC-Long 1920x1080</td> <td>59.94i, 50i: 50/35/25Mbps max, 59.94P, 50P: 29.97P, 25P, 23.98P: 50/35Mbps max</td> </tr> <tr> <td>XAVC-Long 1280x720</td> <td>59.94P, 50P: 50Mbps max</td> </tr> <tr> <td>MPEG HD422 1920x1080</td> <td>59.94i, 50i, 29.97P, 25P, 23.98P: 50Mbps max</td> </tr> <tr> <td>MPEG HD422 1280x720</td> <td>59.94P, 50P, 29.97P, 25P, 23.98P: 50Mbps max</td> </tr> <tr> <td>MPEG HD420 1920x1080</td> <td>59.94i, 50i, 29.97P, 25P, 23.98P: 35Mbps max</td> </tr> <tr> <td>MPEG HD420 1440x1080</td> <td>59.94i, 50i: 35Mbps max</td> </tr> <tr> <td>MPEG HD420 1280x720</td> <td>59.94P, 50P: 35Mbps max</td> </tr> <tr> <td>AVCHD 1920x1080</td> <td>59.94P, 50P: 28Mbps max</td> </tr> <tr> <td>AVCHD 1280x720</td> <td>59.94i, 50i, 29.97P, 25P, 23.98P: 24Mbps max</td> </tr> <tr> <td>DVCAM 720x480</td> <td>59.94i: 25Mbps</td> </tr> <tr> <td>DVCAM 720x576</td> <td>50i: 25Mbps</td> </tr> <tr> <td>Proxy</td> <td>1280x720: 9Mbps 640x360: 3Mbps 480x270: 1Mbps 480x270: 500Kbps</td> <td>-</td> </tr> </table>		XAVC-Intra 1920x1080	59.94i: 111Mbps max, 50i: 112Mbps max, 29.97P: 111Mbps max, 25P: 112Mbps max, 23.98P: 89Mbps max	XAVC-Intra 1280x720	59.94P: 111Mbps max, 50P: 112Mbps max	XAVC-Long 1920x1080	59.94i, 50i: 50/35/25Mbps max, 59.94P, 50P: 29.97P, 25P, 23.98P: 50/35Mbps max	XAVC-Long 1280x720	59.94P, 50P: 50Mbps max	MPEG HD422 1920x1080	59.94i, 50i, 29.97P, 25P, 23.98P: 50Mbps max	MPEG HD422 1280x720	59.94P, 50P, 29.97P, 25P, 23.98P: 50Mbps max	MPEG HD420 1920x1080	59.94i, 50i, 29.97P, 25P, 23.98P: 35Mbps max	MPEG HD420 1440x1080	59.94i, 50i: 35Mbps max	MPEG HD420 1280x720	59.94P, 50P: 35Mbps max	AVCHD 1920x1080	59.94P, 50P: 28Mbps max	AVCHD 1280x720	59.94i, 50i, 29.97P, 25P, 23.98P: 24Mbps max	DVCAM 720x480	59.94i: 25Mbps	DVCAM 720x576	50i: 25Mbps	Proxy	1280x720: 9Mbps 640x360: 3Mbps 480x270: 1Mbps 480x270: 500Kbps	-
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Recording Format (Audio)	LPCM, AC-3 (AVCHD); 2ch→LPCM (XAVC/MPEG2/AVCHD/DVCAM), Dolby Digital (AVCHD); 2ch																														
Lens	Fixed																														
Lens Mount	Fixed																														
Zoom Ratio	25x (optical), servo/manual																														
Focal Length	f=3.7-92.5 mm equivalent to 26-650 mm on 35 mm lens																														
Iris	F1.6 - F11 and C (close)																														
Focus	AF/MF selectable, 10 mm ~ ∞ (Wide), 800 mm ~ ∞ (Tele)																														
Image Stabilizer	ON/OFF/ACTIVE selectable, shift lens																														
Filter Diameter	M82 mm																														

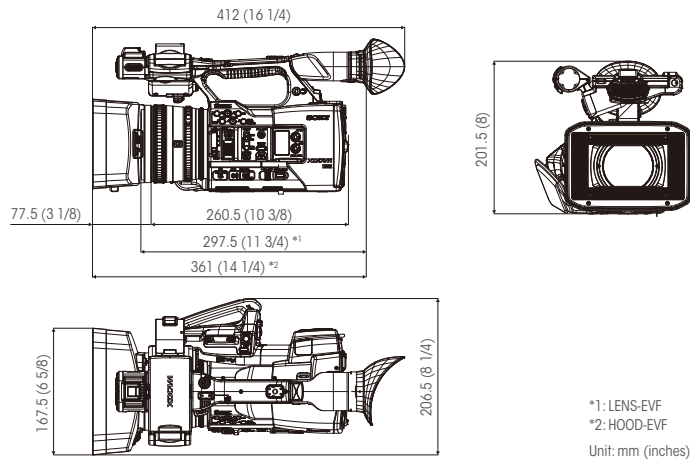
	PXW-X180	PXW-X160
Camera Section		
Imaging Device (Type)	3-chips 1/3-type "Exmor" CMOS Sensor	
Effective Picture Elements	1920 (H) x 1080 (V)	
Built-in Optical Filters	Clear, 1/4-1/128 Variable	
Sensitivity	F9 (typical) (1920 x 1080/59.94i mode) F10 (typical) (1920 x 1080/50i mode)	
S/N Ratio	60 dB (V) (typical)	
Shutter Speed	1/32 sec to 1/2000 sec	
Slow & Quick Motion Function	1920x1080: Frame rate selectable 1-60p (depends on Recording Format) 1280x720: 1-120P (depends on Recording Format) Angle of view becomes smaller over 60fps.	
White Balance	Preset (3200K), A, B	
GPS	Yes	No
Wireless functions	Yes	No
NFC	Yes	No
Input/Output		
Audio Input	XLR-type 3-pin (female) (x2)	
HDMI Output	Type A (x1)	
3G-SDI Output	BNC Connector (x1)	
Composite Output/ GENLOCK-IN	BNC Connector (x1)	
Audio Output	Stereo mini jack ø3.5 mm (x1)	
USB	mini-B/USB2.0 Hi-speed/mass-storage (x1) Type A/for Wireless LAN module (x1) Type A/USB3.0 (x1) (future Update)	
TC in/out	BNC Connector (x1)	
Remote	Stereo mini jack ø2.5 mm (x1)	
DC Input	DC jack (x1)	
Shoe	Multi Interface Shoe (x1)	
Headphone Output	Stereo mini jack ø3.5 mm (x1)	
Monitoring		
Viewfinder	0.5-type color OLED, 2.36M dots	
LCD	3.5-type color LCD monitor Aspect ratio 16:9, 1.56Mdots	
Built-in Microphone		
Built-in Microphone	Omni-directional stereo electret condenser microphone	
Media		
Type	ExpressCard/34 slot (2) (for XAVC/MPEG2/AVCHD/DV) SD/SDHC (1) (for Proxy) SD/SDHC (1) (for Utility)	ExpressCard/34 slot (2) (for XAVC/MPEG2/AVCHD/DV) SD/SDHC (1) (for Utility)
Supplied Accessories		
	Lens hood (1), pre-installed to the Camcorder EVF large eyecup (1) USB cable (1) Audio connecting cable (1) Infrared Remote Commander (1) Lithium battery (CR2025 for the IR Remote Commander) (1) CD-ROM: Operating instructions in PDF (1) AC adaptor (1) BC-U1 battery charger (1) BP-U30 battery pack (1) AC Cable (2) COLD SHOE KIT (1) Shoulder strap (1) Wireless LAN module (1) Warranty booklet (1) Accessory shoe kit (accessory shoe (1), accessory shoe plate (1), screws (4)) SD card adaptor (1) except for PXW-X180 UC model XQD card adaptor (1) PXW-X180 UC model only	Lens hood (1), pre-installed to the Camcorder EVF large eyecup (1) USB cable (1) Audio connecting cable (1) Infrared Remote Commander (1) Lithium battery (CR2025 for the IR Remote Commander) (1) CD-ROM: Operating instructions in PDF (1) AC adaptor (1) BC-U1 battery charger (1) BP-U30 battery pack (1) AC Cable (2) COLD SHOE KIT (1) Shoulder strap (1) Warranty booklet (1) Accessory shoe kit (accessory shoe (1), accessory shoe plate (1), screws (4)) SD card adaptor (1)

*1 The values for dimensions are approximate.

Available Accessories

BP-U30/BP-U60/BP-U90 Rechargeable Battery pack	BC-U1/BC-U2 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	RM-1BP Remote Commander
SBP-128B/SBP-64B SxS Memory Card "SxS PRO+"	SBS-64G1A/SBS-32G1A SxS Memory Card "SxS-1"	QD-S64E/QD-S32E XQD Memory Card S Series	SF-32UX (32 GB, 16 GB, 8 GB) SD/SDHC Memory Card	MS-HX32B (32 GB, 16 GB, 8 GB) 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



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