

PXWX70



The PXW-X70 features a 1.0" type Exmor™ R CMOS Sensor with a resolution of 20 megapixels. The sensor, which is even larger than the Super 16mm film frame, delivers high resolution and fantastic low light performance, as well as offering more depth of field control as demanded by today's diverse shooting requirements.

The new camcorder has the ability to record High Definition in XAVC Long GOP, enabling 422 10-bit sampling at 50 Mbps. This in-turn supports a broadcast-quality workflow, increasingly adopted by productions in many different professional applications. A fixed ZEISS Vario-Sonnar T* lens achieves 12x optical zoom which can be doubled to 24x with Clear Image Zoom and doubled again to 48x with Digital Extender zoom. There is also a ND Filter function, allowing you to choose four conventional mechanical ND filter positions.

Advanced features include Wi-Fi/NFC (Near Field Communication) with Content Browser Mobile™ version 1.4 or later, plus dual media slots, simultaneous or relay recording, and independent record control. In addition, other wireless network features (e.g. live streaming, file transfer, etc.) are supported by firmware upgrade (version 2.0 or later) and 4K (QFHD) recording functionality by charged base upgrade.

Highlights:

- 1.0" type Exmor R CMOS sensor for a wide range of shooting conditions
- XAVC HD422 10bit recording
- 4K (QFHD) recording functionality by charged base

- High sensitivity and high resolution
 - Compact body
 - Optical 12x ZEISS Vario-Sonnar T* lens with lens ring
 - 24x Clear Image Zoom, and 48x Digital Zoom
 - ND filter control mechanism
 - Focus, Zoom, and Iris manual control
 - Wi-Fi/NFC (Near Field Communication) with Content Browser Mobile version 1.4 or later
 - Live streaming, file transfer, etc. are supported by firmware upgrade (version 2.0 and later).
 - Use VMC-AVM1 and CBK-NA1 for wired Ethernet connection.
- optional upgrade.
 - 59.94p / 50p recording at Full HD 1920 x 1080
 - Dual media slots for simultaneous/relay recording, and independent record control
 - Slow & Quick Motion
 - Picture Profile
 - 99 Camera Profiles
 - Multi Interface Shoe (MI Shoe) for flexible connection
 - Viewfinder includes amazing OLED technology
 - 3G HD-SDI output and HDMI standard size connector have Timecode and REC trigger

Features	Benefits:
1.0" type Exmor R CMOS sensor for a wide range of shooting conditions	The PXW-X70 incorporates a 1.0" type Exmor R CMOS sensor to achieve high resolution, high sensitivity, low noise, and wide dynamic range. The sensor has 14.2 million effective pixels enhancing shooting under severe lighting conditions and providing more freedom of creative expression.
High sensitivity and high resolution	Thanks to the 1.0" type Exmor R CMOS sensor, the PXW-X70 has high sensitivity 1.67 stops brighter than a 1/2.88" type sensor. The camcorder also has higher resolution than any other camcorder in its price range. The 1.0" type sensor is brighter and offers more background defocus with a shallow depth of field than 1/3" type or 1/4.7" type sensors.
Compact body	The palm-sized PXW-X70 is ergonomically designed to provide a lightweight and easy-to-use experience.
ZEISS Vario-Sonnar T* lens with lens ring	The PXW-X70 is supplied with a fixed 29 mm wide-angle ZEISS Vario-Sonnar T* lens. Ideal for capturing grand landscapes, it also provides up to 12x optical zoom. It also has one lens ring which enables smooth, natural adjustment of focusing or zooming, depending on which mode is selected.
Clear Image Zoom	The 12x optical zoom can be doubled to 24x with Clear Image Zoom, maintaining full resolution using Super Resolution Technology. In addition, the Digital Extender can double this range again, up to 48x zoom. Super Resolution Technology is a Sony original intelligent interpolation which analyzes the input image and increases the resolution of the image.

Manual controls	The manual dial and buttons on the side of the body allow swift and easy adjustment of IRIS (aperture), GAIN/ISO and shutter speed.
ND filter control mechanism	The PXW-X70 is equipped with multiple ND Filter selections, allowing you to choose four conventional mechanical ND filter positions from 1/4ND, 1/16 to 1/64ND.
Wi-Fi/NFC (Near Field Communication) with Content Browser Mobile, and Video/Audio Streaming for future upgrade	<p>The PXW-X70 can be remotely controlled from a smartphone or tablet computer (iOS 4.3 through 7.0 or Android 2.3 through 4.3) via a Wi-Fi connection, and recorded video files can be transferred from camcorder to smartphone in MP4 format.* In addition to file transfer, streaming via 4G/LTE is available by firmware version 2.0 or later. One-touch authentication is also possible with smartphones that offer NFC connectivity. The required Content Browser Mobile mobile smartphone application can be downloaded from the Google Play Store or App Store.</p> <p>* Wi-Fi operation is not be guaranteed with all smartphones and tablet computers.</p>
Multi-format recording and 4K ready	The PXW-X70 records XAVC Long GOP 422 10-bit 1920x1080 60p/50p/60i/50i/30p/25p/24p at 50 Mbps and 35 Mbps, 1920x1080 60i/50i at 25 Mbps, as well as 1280x720 60p/50p at 50 Mbps. It is also possible to record AVCHD 420 8-bit at 1920x 1080 and 1280x720 and DV. The PXW-X70 is also 4K ready and can handle 4K recordings with paid option upgrade the CBKZ-X70FX.
Dual media slots for simultaneous/relay recording, and independent record control	<p>The PXW-X70 is equipped with two memory card slots. The camcorder is compatible with Memory Stick PRO Duo (Mark 2), Memory Stick PRO-HG Duo and Memory Stick XC-HG Duo media*, as well as SDXC* and SDHC cards. Two media slots can record in either simultaneous or relay mode. Simultaneous mode permits simultaneous recording to two memory cards, while relay mode automatically switches recording from the first to the second memory card when the first is full. The user can set up the two Start/Stop buttons on the PXW-X70, one on the grip and one on the camcorder body, to independently start and stop recording on different memory cards while recording in simultaneous mode.</p> <p>* XAVC can be recorded on either SDXC or Memory Stick XC cards due to high bit rate.</p>
Slow & Quick Motion	Smooth slow or quick motion with full HD quality is available without any extra processing. 2.5x slow motion can be easily achieved by setting the recording format to 24p and the capturing frame rate to 60 fps. The frame rate can also be set to 1 fps for 60x quick motion. In order to go into the S&Q Motion mode, the camera needs to be in XAVC & AVCHD mode (Not DV mode) and Manual mode.
Picture Profile	You can fine-tune the look of movies before shooting by adjusting gradation (black level, gamma and black gamma), adjustment (mode, intensity, tone and depth), basic (gamma and mode) and more. Adjusted parameters can be saved along with other settings as a profile, and up to seven profiles can

be stored for later recall.

99 Camera Profiles

It is possible to save up to 99 camera settings under different profile numbers. User can copy the settings from one PXW-X70 to another PXW-X70 so that user can shoot with multiple cameras in the same settings (only works with same model camcorders). Also, users can save camera settings for each scene, so that it is possible to recall proper settings for the scene immediately..

Multi Interface Shoe (MI Shoe) for flexible connection

The MI Shoe* on top of the PXW-X70 camera body has several possibilities to be used to attach the supplied handle, which will allow Rec Start/Stop, Zoom & Audio Control. Using the MI Shoe connection and the optional adapter SMAD-P3, the audio signal from a UWP-D11 or UWP-D12 wireless microphone package can be input from the wireless microphone receiver to the PXW-X70 without an XLR cable. The power can be supplied from the PXW-X70 to the receiver and a battery is not required for the receiver operation.

* It is not recommended to use the HVL-LBPC light with the MI Shoe as the battery requirement is too high. When the supplied handle is attached to the MI Shoe, it is not possible to use the MI Shoe to control the UWP-D receiver.

Viewfinder includes amazing OLED technology

This 0.39" type OLED viewfinder offers superb OLED brightness, contrast and response. The high resolution (1,440K dot) of the viewfinder allows better precision of manual focus operations and eliminates any color-breaking phenomenon.

Wide choice of connections

The camcorder offers numerous connections to suit the broadcast workflow, including 3G HD-SDI, standard size HDMI connector, USB and composite output. Both TC and Rec Trigger signal can be sent through SDI and HDMI to link an external recording device.

* SDI / HDMI / Composite can not be used at the same time.

Camera Section Specifications

Detail:

Built-in Optical Filters

Clear
1/4ND (2 stops)
1/16ND (4 stops)
1/64ND (6 stops)

Gain

-3, 0, 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33 dB, AGC

Imaging Device	1.0-type (13.2mm x 8.8mm) back-illuminated Exmor R CMOS sensor
Minimum Illumination	[60i] 1.7lux (1/30 Shutter Speed, iris/gain AUTO) [50i] 1.7lux(1/25 Shutter Speed, iris/gain AUTO)
Shutter Speed (Time)	[60i] 1/8 to 1/10000 (1/6 - 1/10000 @24p) [50i] 1/6 to 1/10000
Slow & Quick Motion Function	[60i] 1080p: Frame rate selectable [1.2.4.8.15.30,60 fps] [50i] 1080p: Frame rate selectable [1.2.3.6.12.25,50 fps]
White Balance	Preset (Indoor:3200K, Outdoor:5600K±7 steps, Color temperature set range:2300-15000K), Onepush A, B, Auto selectable
General Specifications	Detail:
Battery Operating Time	approx. 200 min. with NP-FV70 battery (while playing with LCD, XAVC 1080/60i, 50Mbps) approx. 120min. with NP-FV70 battery (while recording with LCD, XAVC 1080/60i, 50Mbps)
Built-in Microphone	Omni-directional stereo electret condenser microphone
Dimensions (W x H x D)	4 7/8 x 4 1/8 x 10 7/8 inches (with lens hood and eyecup) (excluding grip belt and including projecting parts) 5 1/4 x 7 1/8 x 11 3/8 inches (with lens hood, eyecup, and XLR handle unit) (excluding grip belt and including projecting parts)
Mass	approx. 1 lb 15 oz (body) approx. 3lb 1oz (with lens hood, handle, eyecup, NP-FV70 battery)
Operating Temperature	32°F to 104°F (0°C to 40°C)
Power Consumption	Approx. 5.5 W (while recording with viewfinder and XAVC HD 1080/60i 50Mbps) Approx. 5.8 W (while recording with LCD and XAVC HD 1080/60i)

50Mbps)

Power Requirements

DC In: 8.4V
Battery: 6.8V / 7.2V

Recording Format

XAVC Long : XAVC-L 50 mode
- VBR, maximum 50Mbps, MPEG-4 H.264/AVC
- LPCM 24-bit, 48kHz, 2 channels
XAVC Long : XAVC-L 35 mode
- VBR, maximum 35Mbps, MPEG-4 H.264/AVC
- LPCM 24-bit, 48kHz, 2 channels
XAVC Long : XAVC-L 25 mode
- VBR, maximum 25Mbps, MPEG-4 H.264/AVC
- LPCM 24-bit, 48kHz, 2 channels

AVCHD
- VBR, maximum 28Mbps, MPEG-4 H.264/AVC
- LPCM 16-bit, 48kHz, 2 channels
- Dolby Digital 16-bit, 48kHz, 2 channels

DVCAM
- CBR 25Mbps
- LPCM 16-bit, 48kHz, 2 channels

Recording Frame Rate

XAVC Long : XAVC-L 50 mode
- 1920x1080/59.94p, 50p, 59.94i, 50i, 29.97p, 23.98p, 25p
- 1280x720/59.94p, 50p
XAVC Long : XAVC-L 35 mode
- 1920x1080/59.94p, 50p, 59.94i, 50i, 29.97p, 23.98p, 25p
XAVC Long : XAVC-L 25 mode
- 1920x1080/59.94i, 50i

AVCHD
- 1920x1080/59.94p, 50p, 59.94i, 50i, 29.97p, 23.98p, 25p
- 1280x720/59.94p, 50p

DV
- 720x480/59.94i
- 720x576/50i

Recording/Playback Time

XAVC-Long HD@LPCM 2ch 50Mbps
- approx. 120 min with 64 GB memory card
XAVC-Long HD@LPCM 2ch 35Mbps
- approx. 170 min with 64 GB memory card
XAVC-Long HD@LPCM 2ch 25Mbps
- approx. 220 min with 64 GB memory card

AVCHD@LPCM 2ch PS Mode
- approx. 290 min with 64 GB memory card
- approx. 145 min with 32 GB memory card
AVCHD@LPCM 2ch FX Mode
- approx. 340 min with 64 GB memory card
- approx. 170 min with 32 GB memory card
AVCHD@LPCM 2ch FH Mode
- approx. 450 min with 64 GB memory card
- approx. 225 min with 32 GB memory card

DV
- approx. 280 min with 64 GB memory card
- approx. 140 min with 32 GB memory card

Storage Temperature

-4°F to +140°F (-20°C to +60°C)

Inputs/Outputs Specifications

Detail:

Audio Input

XLR type 3-pin (2), female, LINE/MIC/MIC+48V switchable.
3.5mm stereo jack with plug-in power (1)

Composite Output

Multi/Micro USB (1) (use with optional VMC-15MR2)

DC Input

DC jack (1)

DC Output

No

EXT 50-pin

No

HDMI Output

HDMI connector - Type A (1)

Headphone Output

Stereo mini jack ø3.5mm (1)

MIC	3.5mm stereo jack with plug-in power (1))
Remote	Multi/Micro USB (1) (use with optional RM-VPR1)
SDI Output	BNC type (1), switchable with 3G SDI/HD-SDI/SD-SDI SMPTE292M/259M/424M/425M standards
USB	Multi/Micro USB (1)
Video Output	Composite 1.0 Vp-p, 75 Ω Integrated into Multi/Micro USB jack (1)
i.LINK	No
Lens Specifications	
Detail:	
Filter Diameter	M62 mm
Focal Length	f=9.3 - 111.6mm equiv alent to f=29.0 - 348.0mm on 35 mm lens(16:9) equiv alent to f=35.5 - 426.0mm on 35mm lens(4:3)
Focus	10 mm to ∞ (Wide) 1000 mm to ∞ (Tele) AF / MF selectable.
Iris	F2.8 - F4.5 (auto/manual selectable)
Lens Mount	fixed lens
Zoom Ratio	12x optical zoom, 24x Clear Image Zoom, 48x Digital Zoom
Media Specifications	
Detail:	
Type	Memory Stick Pro Duo™ and SD card
Monitoring Specifications	
Detail:	

Built-in LCD Monitor

3.5"-type color LCD: QHD 960(H) x 3(RGB) x 540(V), 16:9, 1.55
mega dots

Viewfinder

0.39" type OLED (approx. 1.44M dots)



