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PMW-100

1/2.9-inch type Exmor CMOS sensor compact XDCAM HD422 camcorder recording full HD on SxSsolid state media

Compact, highly portable XDCAM HD22 (50 Mbps) handheld Camcorder

The PMW-100's 1/2.9-inch Exmor CMOS sensor and MPEG HD422 codec offers astonishingly high quality HD image capture in a compact, light weight chassis. It's a perfect partner for the popular PMW-500 XDCAM HD422 shoulder camcorder, with all the benefits of the established XDCAM production workflow for speed and reliability.Advanced features such as slow and quick motion, cache recording and Night Shot also ensure the PMW-100 is a no-compromise choice when used independently.
For applications such as news gathering, documentaries and events, the PMW-100's low power consumption and dual recording media slots provide plenty of endurance alongside its exceptional handheld portability.
PrimeSupport
This product comes with PrimeSupport – fast, hassle-free repairs and a helpline offering expert technical advice. Which gives you the peace of mind that Sony is looking after your equipment, and your business.

Features

1/2.9-inch type Exmor CMOS sensor for uncompromising full HD image capture

The PMW-100 is equipped with a 1/2.9-inch type Exmor CMOS sensor, providing super blow-light sensitivity with a low noise level, enabling the camcorder to capture beautiful pictures while remaining light weight and compact.

MPEG 422 / 420 HD and SD recordings ensure compatibility with existing XDCAM work flows

The PMW-100 supports both MPEG 422 and 420 recording modes, so footage can be easily intercut with material shot by either opticalor memory-based XDCAM and XDCAM EX camcorders. The PMW-100 also supports both UDF and FAT shooting modes on SxS cards so you can use existing XDCAM and XDCAM EXwork flows.

Large 3.5-inch WVGA (852x480) LCD panel

The PMW-100 is equipped with a large, easy-to-read, 3.5-inch WVGA colour LCD panel. This higher resolution LCD panel helps you to make more precise focusing adjustments as well asto read the status and markers displayed onthe LCD panel. When this LCD panel is not being used, it is placed above the lens so it's out of the way when carrying the camcorder.

Over 4 hours continuous recording with two 64 GB SxS memory cards

The PMW-100 uses Sony's renowned high-speedSxSExpressCard recording media. The PMW-100has two SxS card slots which support both SxSProand SxS-1 recording media. Using a singleSxS-1 64 GB memory card, you can record approximately120 minutes of 50 Mbps HD422 video.Using 64 GB SxS cards in both SxS slots enables you to record approximately 240 minutes ofvideo. While recording to one card, you can exchange the other full SxS card for an empty one. In case of an emergency, a Memory Stick*, SDCard* or XQD can be used as alternative recording media in the PMW-100 with the appropriate memory card adaptor.
*FAT mode only

Slow and quick motion recordings

The PMW-100 offers over-cranking and under-cranking,which enables photographers to createslow- and fast-motion visual effects in-camera. Withthis Slow & Quick Motion function, images are recorded natively with no padded frames and at full resolution. The quality of the slow- and fast-motion images created in-camera is significantly higher than those created through an editing process.

Lens controls for greater versatility

Focusing and zooming are manually controlled using the focus/zoom ring. Also, the exposure level can be manually controlled using an exposure control dial. A wide conversion lens is also available for close range shooting.

Instant shooting with video buffer

Never be caught off guard and miss a critical shot. The PMW-100 will start recording within 3.5 seconds after turning the power on. Also, cache recording

enables you to constantly buffer a 15-second video loop in camera. When you press the record button, the loop is written to the SxS card while normal recording begins.

SD operation

The PMW-100 supports DVCAM recording as well as MPEG HD recording. The file formatin DVCAM recording mode is selectable from either MXF or AVI, and most non-linear editing systems accept these files. The PMW-100 is also equipped with an i.LINK interface and ingestto non-linear editing systems can be done via the i.LINK (DV) interface as well.

Multi-camera operation

The PMW-100 is equipped with Genlock input and time code input/output (selectable) in order to support multiple camera operation. Video from the cameras (e.g. through SDI) can be connected to a switcher for live switching. Or the recorded content on the camcorders can be edited with a non-linear editing system that offers a multi-camera editing function.

Technical Specifications

General	
Mass	Approx 1.5 kg (body)Approx 3 lb 5 oz (body)Approx. 1.8 kg (with lens hood, eye piece, BP-U30 battery, a SxS memory card)Approx. 3 lb 15 oz (with lens hood, eye piece, BP-U30 battery, a SxS memory card)
Dimensions (W x H x D) *1	167 x 164 x 278 mm (without protrusions)6 5/8 x 6 1/2 x 11 inches (without protrusions)
Power Requirements	DC 12 V
Power Consumption	Approx. 12 W (while recording, EVF On, LCD monitor Off,IO Select Off)Approx. 14 W (while recording, EVF On, LCD monitor On,IO Select HD SDI & HD HDMI)
Operating Temperature	0°C to 40°C32°F to 104°F
Storage Temperature	-20°C to +60°C>/br>-4°F to +140°F
Battery Operating Time	Approx. 2 hrs with BP-U30 battery (while recording, HQ 1920 59.94i mode, EVF On, LCD monitor Off, I/O Select Off)Approx. 4 hrs with BP-U60 battery (while recording, HQ 1920 59.94i mode, EVF On, LCD monitor Off, I/O Select Off)Approx. 6 hrs with BP-U90 battery (while recording, HQ 1920 59.94i mode, EVF On, LCD monitor Off, I/O Select Off)
Recording Format (Video)	- HD422 mode: CBR, maximum bit rate: 50 Mbps, MPEG-2 422P@HL- HD420 mode: VBR, 35 Mbps, MPEG-2 MP@HL- DVCAM mode: DVCAM- HQ 1920 mode: VBR, 35 Mbps, MPEG-2 MP@HL- HQ 1440 mode: VBR, 35 Mbps, MPEG-2 MP@HL- SP 1440 mode: CBR, 25 Mbps, MPEG-2 MP@H-14- DVCAM mode: DVCAM
Recording Format (Audio)	- HD422 mode: LPCM 24 bits, 48 kHz, 4 channels- Other mode: LPCM 16 bits, 48 kHz, 4 channels- HD mode: LPCM 16 bits, 48 kHz, 4 channels- SD mode: LPCM 16 bits, 48 kHz, 2 channels
Recording Frame Rate	HD422 Mode: MPEG-2 422P@HL, 50Mbps/ CBR- 1920x1080/ 59.94i, 50i, 29.97p, 25p, 23.98p- 1280x720/ 59.94p, 50p, 29.97p, 25p, 23.98pHD420 Mode: MPEG-2 MP@HL, 35Mbps/ VBR- 1440x1080/ 59.94i, 50i, 29.97p, 25p, 23.98p- 1280x720/ 59.94p, 50p, 23.98pDVCAM Mode- 720x480/ 59.94i, 29.97PsF- 720x576/ 50i, 25PsFHQ 1920 Mode: MPEG-2 MP@HL, 35Mbps/ VBR- 1920x1080/ 59.94i, 50i, 29.97p, 25p, 23.98pHQ 1440 Mode: MPEG-2 MP@HL, 35Mbps/ VBR- 1440x1080/ 59.94i, 50i, 29.97p, 25p, 23.98pHQ 1280 Mode: MPEG-2 MP@HL, 35Mbps/ VBR- 1280x720/ 59.94p, 50p, 29.97p, 25p, 23.98pSP 1440 Mode: MPEG-2 MP@H-14, 25Mbps/ CBR
	- 1440x1080/ 59.94i, 50i, 23.98p (2-3 pull down)DVCAM Mode- 720x480/ 59.94i, 29.97PsF- 720x576/ 50i, 25PsF

Recording/Playback Time	HD 422 modeApprox. 120 min with SBP-64/ SBS-64G1A (64 GB) memory cardApprox. 60 min with SBP-32/ SBS-32G1A (32 GB) memory cardApprox. 30 min with SBP-16 (16 GB) memory cardHD 420 mode:Approx. 180 min with SBP-64/ SBS-64G1A (64 GB) memory cardApprox. 90 min with SBP-32/ SBS-32G1A (32 GB) memory cardApprox. 45 min with SBP-16 (16 GB) memory cardDVCAM modeApprox. 260 min with SBP-64/ SBS-64G1A (64 GB) memory cardApprox. 130 min with SBP-32/ SBS-32G1A (32 GB) memory cardApprox. 65 min with SBP-16 (16 GB) memory card

Lens	
Lens Mount	Fixed
Zoom Ratio	10x (optical), servo/manual
Focal Length	f = 5.4 - 54 mm (equivalent to 40-400 mm on 35 mm lens)
Iris	F1.8 - F2.9auto/manual selectable
Focus	AF/MF selectable,10 mm to ∞ (Wide),800 mm to ∞ (Tele)
Image Stabilizer	ON/OFF selectable, shift lens
Filter Diameter	M37 mm, pitch 0.75mm

Camera Section	
Imaging Device (Type)	1/2.9-inch type Single-chip Exmor CMOS
Effective Picture Elements	1920 (H) x 1080 (V)
Minimum Illumination	0.40 lx (typical) (1920 x 1080/59.94i mode, F1.8, +18 dB gain, with 64-frame accumulation, Gamma off, 100% video level)0.08 lx (typical) (1920 x 1080/ 59.94i mode, F1.8, +18 dB gain, with 64-frame accumulation, Gamma on, 50% video level)
Shutter Speed	1/32 sec to 1/2,000 sec
Slow Shutter (SLS)	2, 3, 4, 5, 6, 7, 8, 16, 32, and 64-frame accumulation
Slow & Quick Motion Function	720p: Frame rate selectable from 1 fps to 60 fps(from 1 fps to 50 fps in PAL area setting in UDF mode)1080p: Frame rate selectable from 1 fps to 30 fps(from 1 fps to 25 fps in PAL area setting in UDF mode)
White Balance	Preset (3200K), Memory A, Memory B/ATW
Gain	-3, 0, 3, 6, 9, 12, 18 dB, AGC
Gamma Curve	Selectable

Input/Output	
Audio Input	XLR-type 3-pin (female) (x2), line/mic/mic +48 V selectableLine: +4dBuMic: -30dBu--70dBu
Composite Output	AV multi connector, NTSC or PAL
Video Output	BNC (x1), HD-Y/ Composite1.0Vp-p, 75Ω(switchable to Genlock in)
Audio Output	A/V multi connector-10dBu (Reference Level), 47kΩ
SDI Output	BNC (x1), HD/SD selectableSMPTE 292M/259M standards
i.LINK	IEEE 1394, 4-pin (x1), HDV (HDV 1080i) / DV input/output, S400
Timecode Input	BNC (x1) (switchable to TC out)SMPTE 12M-2-2008 standard0.5V-1.8Vp-p, 10kΩ
Timecode Output	BNC (x1) (switchable to TC in)SMPTE 12M-2-2008 standard1.0Vp-p, 10kΩ
Genlock Input	BNC (x1) (switchable to Video out)1.0 Vp-p, 75Ω
USB	USB device, mini-B (x1)
Headphone Output	Stereo mini jack (x1)-18dBu 16Ω
Speaker Output	Monaural, 250mW
DC Input	DC jack
HDMI Output	Type A (x1)

Monitoring	
Viewfinder	0.24-inch type color LCD: 392 (H) x 224 (V), 16:9
Built-in LCD Monitor	3.5-inch type color LCD monitor: 852 (H) x 3 (RGB) x 480 (V), 16:9

Built-in Microphone	
Built-in Microphone	Omni-directional stereo electret condenser microphone.

Media	
Type	ExpressCard/34 slot (x2)

Supplied Accessories	
Supplied Accessories	Lens hood (1)Lens cap (1)Infrared Remote Commander (1)USB cable (1)AV connecting cable (1)BP-U30 battery pack (1)BC-U1 battery charger (1)Shoulder strap (1)Lithium battery (CR2032 for backup) (1)Lithium battery (CR2025 for the IR Remote Commander) (1)CD-ROM:- Utility software (1)- Operating instructions in PDF (1)Operating instructions (1)

*1	The values for dimensions are approximate.