

SONY
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PXW-Z100

4K Handheld XDCAM® Memory Camcorder

XDCAM™

XAVC



Sony Lens G

Exmor R™
CMOS Sensor

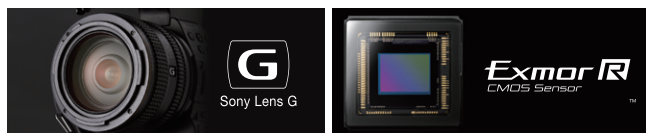
XQD™

4K for all

Previously the exclusive domain of feature films and high-end production, 4K is now available for corporate video, event video, education and houses of worship. Sony introduces the PXW-Z100, the one-piece handheld camcorder that makes the phenomenal imagery of 4K available to anyone, anywhere, for any application. With the PXW-Z100, you can shoot incredibly rich, superbly robust 1080p HD, then switch over to 4K (4096 x 2160) or 4K TV-friendly Quad Full HD (3840 x 2160), whenever you need them. Choose frame rates from 24p to 60p. Because the camera uses the same XAVC™ Intra 4:2:2 codec as Sony's high-end F55, your pictures are superb. Because the ergonomics are based on Sony's popular standard handheld camcorders, the operation is friendly and familiar. And because the camera captures 4K, it's ready for whatever you're shooting today—and tomorrow.

4K 60p in a handheld camera

With the PXW-Z100, high resolution and high sensitivity go hand in hand. The 1/2.3" sensor boasts 8.8 million effective pixels, while back-illuminated Exmor® R CMOS technology delivers impressive low-light performance. The sophisticated optics of Sony's 4K-rated G Lens provides a generous 20x zoom, plus a versatile 30mm wide angle (4K mode, 35mm full frame equivalent).



Sony's amazing XAVC codec

The PXW-Z100 boasts the same high-end XAVC™ Intra codec as the F55 digital motion picture camera. You get the power of 4:2:2 color, the dynamic expression of 10-bit recording and the accuracy of all-I-frame encoding, which compresses each frame individually. Based on industry-standard AVC/H.264 compression, XAVC recording is already compatible with leading dailies, editing and color correction tools. You get 4K, QFHD or HD at frame rates from 24p to 60p. The maximum 4K bit rate is 600 Mbps (60p) while the top HD bit rate is 223 Mbps (50/60p).



Upgrade path to XAVC LongGOP

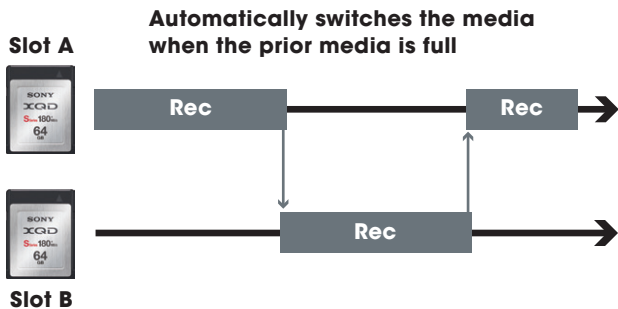
For extended recording time, Sony plans to offer XAVC LongGOP and the popular AVCHD™ codec as a firmware update planned for the middle of 2014. AVCHD files are particularly well suited to the Blu-ray Disc® playback environment.

Advanced XQD memory cards

Keeping up with the impressive data rates of XAVC 4K recording takes some equally impressive memory. The PXW-Z100 features two slots for XQD® memory cards, which have been standardized by the CompactFlash Association. The system takes advantage of the familiar PCI Express interface and a Sony-developed controller to support stable recording at up to 600 Mbps. For best performance, we recommend S Series QD-S32E and QD-S64E cards.



Format	Resolution	Wrapper	Frame Rate	Bit Rate	Media	Rec. Time 32GB x1	Rec. Time 64GB x1	Rec. Time 64GB x2
XAVC [4K] Intra 422 10-bit	4096x2160 3840x2160	MXF	60p	600 Mbps	XQD (2 slot relay)	5 min	10 min	20 min
			50p	500 Mbps		7 min	15 min	30 min
			30p	300 Mbps		10 min	20 min	40 min
			25p	250 Mbps		10 min	25 min	50 min
			24p	240 Mbps		10 min	30 min	60 min
XAVC [HD] Intra 422 10-bit	1920x1080	MXF	60p	223 Mbps	XQD (2 slot relay)	15 min	30 min	60 min
			50p	223 Mbps		15 min	30 min	60 min
			30p	112 Mbps		30 min	60 min	120 min
			25p	112 Mbps		30 min	60 min	120 min
			24p	89 Mbps		30 min	75 min	150 min



Relay recording

For extended shoots, the PXW-Z100 provides relay recording between the two card slots. You can begin a recording session on one card, then automatically switch to another—and even replace the first card and switch back! Maximum session duration is 13 hours. (With current NLEs, spanned clips cannot be combined. Depending on NLE, audio may be discontinuous at the breaks.)

High-quality audio

Two XLR connectors support professional microphones such as the Sony ECM-680S and wireless microphone systems such as the UWP-V1 (sold separately). By combining the built-in stereo microphone with the external microphone input, you can record up to four channels of 24-bit/48-kHz audio.



4K HDMI and 3G HD-SDI outputs

The HDMI® output delivers 4K/60p and 4K/50p to Sony 4K BRAVIA® televisions. For broader compatibility, Sony plans to release a firmware upgrade* when the HDMI standard is enhanced to support 4K 50/60p. The 3G HD-SDI output supports 1080/60p and provides HD output during 4K recording. (The camera cannot output 4K (HDMI) and HD (3G HD-SDI) simultaneously.)

*Planned availability Summer 2014.

Time code input/output

A true professional, the PXW-Z100 provides time code input and output, vital to multi-camera productions.

Wi-Fi remote control

For operating flexibility, you can control record start/stop, focus, zoom and aperture from a smartphone browser.



Creative paint functions

The PXW-Z100 affords exceptional creative control with adjustable gamma curve, black level, skin detail, color and more. You can even save these parameters to a memory card as a camera profile. Then use your profile on another PXW-Z100 for precise matching in multi-camera setups.

Powerful focus assist

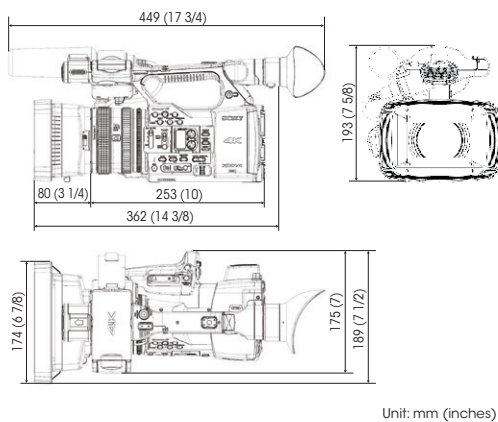
Because focus is especially critical on 4K content, Sony provides auto focus and one-touch auto focus, plus powerful support for manual focus, including color peaking and focus magnifier.

Specifications










PXW-Z100	
General	
Weight	Approx 5 lb 6.75 oz, 2.46 kg Approx. 6 lb 6.7 oz, 2.91 kg (with lens hood, eyecup, NP-F970 battery, ECM-XM1 Mic)
Dimensions (W x H x D)	Approx. 7 7/16 x 7 19/32 x 14 1/4 inches, 189 x 193 x 362 mm (without protrusions)
Power Requirements	7.2 V (battery pack); 12.0 V (AC Adaptor)
Power Consumption	Approx. 14.9 W (while recording, EVF On) Approx. 15.2 W (while recording, LCD monitor On)
Operating Temperature	32°F to 104°F (0°C to 40°C)
Storage Temperature	-4°F to +140°F (-20°C to +60°C)
Battery Operating Time	Approx. 165 mins with NP-F970 battery (while recording, EVF ON, LCD monitor Off)
Recording Format (Video)	XAVC (AVC/H.264 High 4:2:2 Intra Profile VBR)
XAVC 4K 4096 x 2160 or 3840 x 2160	59.94p; 600 Mbps max, 50p: 500 Mbps max 29.97p; 300 Mbps max, 25p: 250 Mbps max, 23.98p: 240 Mbps max
XAVC HD 1920 x 1080	59.94p, 50p: 223 Mbps max 29.97p, 25p: 113 Mbps max, 23.98p: 89 Mbps max
Recording Format (Audio)	LPCM 8CH (2CH recording/playback), 24-bit, 48-kHz
Recording/Playback Time (with QD-S64E [64 GB] memory card)	4K 59.94p mode: Approx 10 min 4K 50p mode: Approx 15 min 4K 29.97p mode: Approx 20 min 4K 25p mode: Approx 25 min 4K 23.98p mode: Approx 30 min HD 59.94p, 50p mode: Approx 30 min HD 29.97p, 25p mode: Approx 60 min HD 23.98p mode: Approx 75 min
Lens	
Lens Mount	Fixed
Zoom Ratio	20x (optical), servo/manual
Focal Length	f≈4.1 - 82.0 mm equivalent to f=30.0 - 600 mm on 35 mm lens (17:9 4096 x 2160) equivalent to f=31.5 - 630 mm on 35 mm lens (16:9 3840 x 2160, 1920 x 1080)
Iris	F1.6 - F11 auto/manual selectable
Focus	AF/MF selectable, 10 mm to ∞ (Wide), 800 mm to ∞ (Tele)
Image Stabilizer	ON/OFF selectable, shift lens
Filter Diameter	M72 mm
Camera Section	
Imaging Device (Type)	1-chip 1/2.3 type back-illuminated "Exmor R" CMOS Sensor
Imaging Device (Pixel Count)	18.9M (total), 8.8M (effective)
Built-in Optical Filters	OFF: Clear, 1: 1/4ND, 2: 1/16ND, 3: 1/64ND
Minimum Illumination	60P: 4 lux (1/30 Shutter Speed) 50P: 3 lux (1/25 Shutter Speed)

Shutter Speed	1/3 sec to 1/9,000 sec
Slow & Quick Motion Function	1080p: Frame rate selectable 1,2,4,8,15,30,60 fps in NTSC mode from 1,2,3,6,12,25,50 fps in PAL mode
White Balance	Preset (Outdoor: 5600K), A, B
Gain	0, 3, 6, 9, 12, 15, 18, 21, 24, 27 dB, AGC
Gamma Curve	Selectable
Input/Output	
Audio Input	XLR-type 3-pin (female) (x2), line/mic/mic +48 V selectable
Composite Output	Composite Video Out (RCA pin)
Audio Output	RCA pin
SDI Output	BNC (x1), HD/SD selectable
Timecode Input / Output	RCA pin (x1) IN/OUT selectable
USB	mini-USB2.0 Hi-speed/mass-storage (x1), Type-A/USB2.0 Hi-speed /Host*1 (x1)
Headphone Output	Stereo mini jack ø3.5 mm (x1)
Speaker Output	Monaural
DC Input	DC jack
Remote	Stereo mini mini jack ø2.5 mm (x1)
HDMI Output	Type A (x1)
Monitoring	
Viewfinder	0.45-inch type color LCD: 852 [H] x 3 [RGB] x 480 [V], 16:9
Built-in LCD Monitor	3.5-inch type Xtra Fine LCD™: 852 [H] x 480 [V] x 3 [RGB], 16:9
Built-in Microphone	
	Omni-directional stereo electret condenser microphone.
Media	
Type	XQD x2 (for XAVC) Memory Stick Duo™ and SD/SDHC/SDXC compatible x1 (for AVCHD) *AVCHD is planned to be updated in the future SD/SDHC/SDXC x1 (for Utility SD slot)
Supplied Accessories	
	Lens hood (1), Pre-installed to the camcorder EVF eyecup (1) USB cable (1) AV connecting cable (1) AC-NB12A AC adaptor (1) HDMI cable (1) Wi-Fi dongle (1) ECM-XM1 microphone (1) Operating instructions (1) AC cable (2) Battery charger (1) NP-F970 battery (1) Warranty (1) CD-ROM: Operating instructions in PDF (1)

Dimensions



Available Accessories

				
2NP-F970/B Rechargeable Battery Pack	ACC-L1BP AC Adaptor/ Charger/Battery Kit	VCT-PG11RMB Tripod with RM-1BP Remote Controller	ECM-673/9X Shotgun Microphone	ECM-MS2 Stereo Microphone
				
RM-1BP Remote Commander® Unit	QD-S32E/QD-S64E XQD S Series card 32GB / 64GB	MRW-E80 XQD Card Reader	UWP-V1 Lav Mic, Bodypack TX and Portable RX Wireless System	

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