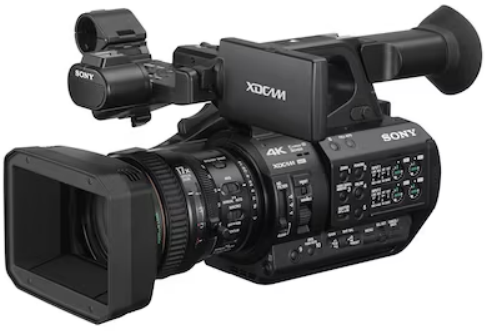
SONY

PXW-Z280

World’s first 4K Handheld Camcorder with 1/2-type 3CMOS with 4K 50p/60p recording capability, 12G-SDI, Dual Link Cellular capability, 17x zoom lens, advanced Face Detection AF



Overview

Superb handheld 4K HDR performance

An all-new 4K 3CMOS 1/2-type sensor with a deep depth of field and provides stunning 4K HDR performance in your hand. Face Detection AF keeps your subject in focus, while HLG and S-Log3 provide stunning HDR to suit any workflow.

World-class networking capabilities

PXW-Z280 features Dual Link Cellular capability for double the uplink performance and reliability.*

*Requires PWS-110RX1A/110RX1.

The complete package for professionals

Unpack and shoot from day one. Advanced XAVC-Intra and XAVC-Long for 4K QFHD and HD, plus MPEG HD422, MPEG HD and DVCAM to support any workflow. Familiar Sony control layout and operation minimise training requirements.

Features

1/2-type 3CMOS Sensor for broadcast 4K
The Z280’s all-new Exmor R™ imager is custom-designed for broadcast 4K acquisition. Its three 1/2-type Exmor R™ CMOS deliver a deep depth of field with superb image quality. Red, blue, and green light are independently captured by separate image sensors, contributing to high resolution, high sensitivity of F12 (59.94p) and wide dynamic range. An advanced LSI (featuring intelligent noise reduction and enhanced detail reproduction) delivers remarkably lifelike 4K 4:2:2 10-bit images. Even if you’re delivering in HD, your recordings will capture detail and image texture that HD sensors simply cannot see.

17x professional HD zoom lens with three independent rings with end-stop and large focal length
The PXW-Z280 is equipped with a 17x professional zoom lens able to zoom from 30.3mm to 515mm (35mm equivalent). The 1/2-inch type lens has three independent control rings with end-stop, which allows manual control of focus, zoom and iris, making for better and faster adjustment.

The image can be enlarged without any picture degradation in HD mode and 34x times zoom equivalent image is captured with sensor cropping extender.

Spectacular HDR performance
Demand for HDR content is increasing and Z280 offers you a choice of two powerful workflows.

S-Log2/3 is the proven choice for premium applications where you wish to capture as much data as possible for the ultimate flexibility in grading Instant HDR Workflow is all about speed. Shoot, edit and view content in Hybrid Log-Gamma

(HLG) to deliver content quickly without compromising on imaging expression and quality of content.

Amazingly fast precision auto focus
The PXW-Z280 features newly developed Face detection AF. You can choose between Face Priority AF and Face Only AF. Simply keep the person in frame and and however you move to obtain a better angle, you can be confident the PXW-Z280 will keep your subject in pin-sharp focus.

12G-SDI accelerated workflow
Revolutionise your workflow with 12Gbps content transfer – four times the bandwidth of 3G-SDI over a standard SDI cable and ideal for working with highest quality 4K content or speeding through HD content. Once you've tried it, you won't want to use anything else.

Accurate OLED viewfinder
An expansive 0.5-inch high quality OLED viewfinder is perfectly offset for right-eye or left-eye viewing. OLED's superb accuracy, high contrast and high resolution (2.36M dot) enables precise manual focus and eliminates any colour-breaking phenomenon.

Dual Multi-Interface (MI) Shoe
MI Shoe provides power, signal connections and coordinated on/off switching to compatible Sony accessories. For example, you can connect and control Sony wireless microphone systems such as the UWP-D11 or UWP-D12 or attach the HVL-LBPC light *Connectors at front and back of camcorder maximise operational flexibility.

*Accessories sold separately. HVL-LBPC light does not draw power from PXW-Z280.

Dual XLR and 4 Channel Audio
The PXW-Z280 offers superior professional audio capabilities with independent volume dials enabling precision control of external audio inputs, including an MI-shoe attached microphone.

Dual SxS media slots
The camcorder is equipped with two SxS memory card slots, which can record in Simul, Relay or Back up mode*. Simul mode permits simultaneous recording to two memory cards, including simultaneous recordings of MPEG HD exFAT and UDF recordings, ideal for archival purposes. Relay mode automatically switches recording from the first to the second memory card when the first is full to extend recording times. In Back up mode, users can set up the two Start/Stop buttons on the PXW-Z280, one on the grip and one on the camcorder body, to independently start and stop recording on different memory cards while recording in Simul mode.*

*Simul and back-up recording are limited to HD operation.

Networked for high mobility
PXW-Z280 comes with 5GHz* and 2.4GHz Wi-Fi as standard – simply log onto your preferred network to enable a host of advanced features:

• IBM Cloud Video® Direct Streaming allows you to share scenes as they happen with high quality picture and sound without a switcher
• High quality Sony QoS Streaming to optional Network RX station and XDCAM air allows live streaming for viewing at a remote location
• FTP Transfer allows content files recorded with MPEG HD 422/420 proxy feature and other content files shot in XAVC (QFHD/FHD) to be sent over the internet for remote storage on an FTP server even while shooting. In case of signal interruption, the system will automatically resume as soon as connection restored
• Trimming function is available for both proxy and PGM without need for a PC. Eliminate time wasted transferring unnecessary content

• XDCAM air can upload proxy footage to the cloud from multiple camera operators. Uploaded content can be accessed securely from any location. News teams can start logging clips while shooting's still going on, saving valuable time when a story's breaking
• Wi-Fi/NFC (Near Field Communication) with Content Browser Mobile™ allows the PXW-Z280 to be remotely controlled from a smartphone or tablet computer (iOS 9.0 – 10.3 or Android 4.4 through 7.1) via a Wi-Fi connection. One-touch authentication is also possible with smartphones that offer NFC connectivity
• Wired LAN port allows you to connect the PXW-Z280 to the Internet with a standard Ethernet cable

*5 GHz support dependent on country/regional regulation. Only PXW-280V support 5 GHz.
**The Content Browser Mobile™ application can be downloaded from the Google Play Store or App Store. Wi-Fi operation cannot be guaranteed with all smartphones and tablet computers.

High quality XAVC Intra and XAVC Long GOP recordings
XAVC technology is based on the H.264 standard, which provides an exceptionally robust and efficient compression technology. XAVC Intra (frame) compression means that every frame is encoded independent of the other frames – providing a better quality picture, without compromises. XAVC Long GOP applies compression across multiple frames – reducing file sizes, which can make for fast ingest and editing as well as providing budget savings on recording media. The XAVC codec adopts 10-bit sampling for high definition recording with rich tonal expression.

Broadcast-standard MPEG HD422 and MPEG HD
High-quality MPEG HD422 50 Mbps is fully compliant with the latest EBU recommendations for long-form broadcast production and is widely accepted in broadcasting stations and production houses. This recording capability makes PXW-Z280 ideal for a wide range of different applications, including newsgathering and documentary production.

DVCAM at 25 Mbps in MXF file format
Many broadcasters and production houses still utilise the proven DVCAM format and PXW-Z280 provides support at the flick of a switch.

Specifications

General	
Important Note	PXW-Z280 is available from Sony as two SKUs. PXW-Z280V supports both 5Ghz and 2.4Ghz Wi-Fi. PXW-Z280T supports 2.4GHz Wi-Fi. Availability is determined by country/regional regulations.
Mass	Approx 2.6 kg (body) Approx. 5 lb 11.7 oz (body) Approx. 3.0 kg (with lens hood, eyecup, BP-U35 battery, a SxS memory card) Approx. 6 lb 9.8 oz (with lens hood, eyecup, BP-U35 battery, a SxS memory card)
Dimensions (W x H x D)	178.4 × 202.0 × 426.3 mm (With the accessories (lens hood, eyecup), excluding the grip belt and including the projecting parts) 7 1/8 x 8 x 16 7/8 inches (With the accessories (lens hood, eyecup), excluding the grip belt and including the projecting parts)

General	
Power Requirements	DC In: 12V Battery: 14.4 V Please use genuine Sony batteries to ensure correct and safe operation*2
Power Consumption	Approx. 24W (while recording with LCD Off, EVF On when the external device connector is not used.) Approx. 36W (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 +140°F
Battery Operating Time	Approx. 1 hours, 20 minutes with BP-U35 battery (while recording with LCD Off, EVF On when the external device connector is not used.) Approx. 1 hours, 5 minutes with BP-U30 battery (while recording with LCD Off, EVF On when the external device connector is not used.) Approx. 2 hours, 10 minutes with BP-U60 battery (while recording with LCD Off, EVF On when the external device connector is not used.) Approx. 3 hours, 15 minutes with BP-U90 battery (while recording with LCD Off, EVF On when the external device connector is not used.)

General	
Recording Format (Video)	<XAVC Intra> XAVC-I QFHD mode: MPEG-4 AVC/H.264, VBR, Max.600 Mbps XAVC-I HD mode: MPEG-4 AVC/H.264, CBG, Max.222 Mbps <XAVC Long> XAVC-L QFHD mode: VBR, maximum bit rate 150Mbps, MPEG-4 H.264/AVC XAVC-L HD 50 mode: VBR, maximum bit rate 50Mbps, MPEG-4 H.264/AVC AVC-L HD 35 mode: VBR, maximum bit rate 35Mbps, MPEG-4 H.264/AVC XAVC-L HD 25 mode: VBR, maximum bit rate 25Mbps, MPEG-4 H.264/AVC <MPEG-2 Long GOP> MPEG HD422 mode: CBR, maximum bit rate 50Mbps, MPEG-2 422P@HL MPEG HD420 HQ mode: VBR, maximum bit rate 35Mbps, MPEG-2 MP@HL <DVCAM> DVCAM mode: CBR, 25Mbps, DVCAM
Recording Format (Audio)	<XAVC Intra> XAVC-I mode: LPCM 24-bit, 48kHz, 4 channels: <XAVC Long> XAVC-L mode: LPCM 24-bit, 48kHz, 4 channels: <MPEG-2 Long GOP> MPEG HD422 mode: LPCM 24-bit, 48kHz, 4 channels: MPEG HD420 HQ mode: LPCM 16-bit, 48kHz, 4 channels: <DVCAM> DVCAM mode: LPCM 16-bit, 48kHz, 4 channels

General	
Recording Frame Rate	<XAVC Intra> XAVC-I QFHD mode: 3840x2160/59,94p, 50p, 29.97p, 23.98p, 25p XAVC-I HD mode: 1920x1080/59,94p, 59.94i, 50p, 50i, 29.97P, 23.98P, 25P 1280x720/59.94P, 50P <XAVC Long> XAVC-L QFHD 150 mode: 3840x2160/59.94P, 50P, 29.97P, 23.98P, 25P XAVC-L HD 50 mode: 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P 1280x720/59.94P, 50P XAVC-L HD 35 mode: 1920x1080/59.94P, 50P, 59.94i, 50i, 29.97P, 23.98P, 25P
Recording Frame Rate - Continued	XAVC-L HD 25 mode: 1920x1080/59.94i, 50i <MPEG-2 Long GOP> MPEG HD422 mode: 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P 1280x720/59.94P, 50P, 29.97P, 23.98P, 25P MPEG HD420 HQ mode: 1920x1080/59.94i, 50i, 29.97P, 23.98P, 25P 1440x1080/59.94i, 50i 1280x720/59.94P,50P <DVCAM> DVCAM mode: 720x480/59.94i, 29.97PsF 720x576/50i, 25PsF
Recording/Playback Time	<XAVC Intra> XAVC-I QFHD mode When using SBP-128B(128GB): Approx. 22 minutes XAVC-I HD mode When using SBP-128B(128GB): Approx. 57 minutes <XAVC Long> XAVC-L QFHD 150 mode When using SBP-128B(128GB): Approx. 86 minutes XAVC-L HD 50 mode When using SBP-128B(128GB): Approx. 230 minutes XAVC-L HD 35 mode When using SBP-128B(128GB): Approx. 310 minutes

General

Recording/Playback Time - Continued	XAVC-L 25 mode When using SBP-128B(128GB): Approx. 420 minutes <MPEG-2 Long GOP> MPEG HD422 mode When using SBP-128B(128GB): Approx. 215 minutes MPEG HD420 HQ mode When using SBP-128B(128GB): Approx. 330 minutes <DVCAM> When using SBP-128B(128GB): Approx. 405 minutes
Recording Format (Proxy Audio)	XAVC Proxy: AAC-LC, 128 kbps, 2 channels
Recording Format (Proxy Video)	XAVC Proxy: AVC/H.264 Main Profile 4:2:0 Long GOP, VBR 1920x1080, 9Mbps 1280x720, 9Mbps 1280x720, 6Mbps 640x360, 3Mbps 480x270, 1Mbps 480x270, 0.5Mbps

Lens

Lens Mount	Fixed
Zoom Ratio	17x (optical), servo/manual
Focal Length	f = 5.6 - 95.2 mm (35mm equivalent: 30.3 - 515 mm)
Iris	F1.9 - F16 and close auto/manual selectable
Focus	800 mm to ∞ (Macro Off), 50 mm to ∞ (Macro On, Wide), 800 mm to ∞ (Macro On, Tele) AF/MF/Full MF selectable
Image Stabilizer	On/Off selectable, shift lens
Filter Diameter	ϕ77 mm, pitch 0.75mm

Camera Section

Imaging Device (Type)	1/2 type back-illuminated Exmor R 3CMOS sensor
Effective Picture Elements	3840 (H) x 2160 (V)
Optical System	F1.6 prism system

Camera Section	
Built-in Optical Filters	ND filters OFF: CLEAR 1: 1/4ND 2: 1/16ND 3: 1/64ND Linear variable ND (Approx. 1/4ND to 1/128ND)
Sensitivity (2000 lx, 89.9% reflectance)	F12 (typical, 1920 x 1080/59.94p mode) F13 (typical, 1920 x 1080/50p mode) F12 (typical, 3840 x 2160/59.94p, High Sensitivity Mode) F13 (typical, 3840 x 2160/50p, High Sensitivity Mode)
Minimum Illumination	0.0013lx (typical) (1920 x 1080/59.94i mode, F1.9, +42 dB gain, High Sensitivity Mode, with 64 frame accumulation)
S/N Ratio	63 dB (Y) (typical)
Horizontal Resolution	2,000 TV lines or more (3840 x 2160p mode) 1,000 TV lines or more (1920 x 1080p mode)
Shutter Speed	1/24 sec to 1/8,000 sec
Slow Shutter (SLS)	2, 3, 4, 5, 6, 7, 8, 16, 32, and 64-frame accumulation
Slow and Quick Motion Function	<XAVC Intra> <XAVC Long> 2160P: 1-60 fps 1080P: 1-60 fps 720P: 1-60 fps <MPEG HD422> 1080P: 1-30 fps 720P: 1-60 fps <MPEG HD420 HQ> 1080P: 1-30 fps 720P: 1-60 fps
White Balance	Preset (3200K), Memory A, Memory B/ATW
Gain	-3, 0, 3, 6, 9, 12, 15, 18 dB, 42dB(Turbo Gain ON), AGC
Gamma Curve	Selectable

Streaming	
Protocol *3	AVC / RTMP / RTMPS 1920x1080 at 9Mbps 1920x1080 at 6Mbps 1280x720 at 3Mbps 640x340 at 1Mbps

Input/Output

Audio Input	XLR-type 3-pin (female) (x2), line/mic/mic +48 V selectable LINE：+4, 0, -3dBu/10kΩ MIC：-80dBu to -30dBu /3kΩ (0 dBu=0.775 Vrms)
Video Output	BNC (x1), HD-Y/ HD-SYNC/Composite 1.0Vp-p, 75Ω (switchable to Genlock in)
Audio Output	Integrated into Multi/Micro USB jack(x1)
SDI Output	BNC (x1), 12G/3G/HD/SD selectable
Timecode Input	BNC (x1) (switchable to TC out) 0.5V-1.8Vp-p, 3.3kΩ
Timecode Output	BNC (x1) (switchable to TC in) 1.0Vp-p, 75Ω
Genlock Input	BNC (x1) (switchable to Video out) 1.0 Vp-p, 75Ω
USB	USB device, Multi/Micro USB jack (x1) Host:USB 3.0/2.0 type A(x1) USB 2.0 type A(x1)
Headphone Output	Stereo mini jack (x1) -16dBu 16Ω
Speaker Output	Monaural Output: 500mW
DC Input	DC jack (x1)
Remote	Stereo mini-minijack (Φ2.5 mm)
HDMI Output	Type A (x1)
Wired LAN	RJ-45 (x1), 1000BASE-T, 100BASE-T, 10BASE-T

Monitoring

Viewfinder	1.3 cm (0.5 type) Approx 2.36M dots
LCD	8.8cm (3.5 type) Approx. 1.56M dots

Built-in Microphone

Built-in Microphone	Omni-directional stereo electret condenser microphone

Media

Type	ExpressCard/34 slot (x2)

Wi-Fi/NFC

Supported Format	IEEE 802.11 a/b/g/n/ac
Frequency Band	2.4 GHz bandwidth 5.2/5.3/5.6 GHz bandwidth*1
Security	WEP/WPA-PSK/WPA2-PSK
NFC	NFC Forum Type 3 Tag compliant

Supplied Accessories

Supplied Accessories	Lens hood (1), Pre-installed to the Camcorder EVF eyecup (1) Battery pack BP-U30 or U35 (1) AC Adapter/charger BC-U1A (1) Power Code (1) USB cable (1) Shoulder strap (1) Warranty Booklet (1) "Before Using this Unit" (1) CDROM "Operating instructions" (1)

Notes

*1	Depending on country / regional regulation and only on PXW-Z280V SKU.
*2	Sony does not guarantee other manufacturers' batteries to operate properly as noted in operation manual.
*3	Requires V4 or higher firmware.

Related products

PWS-110RX1A

Network RX Station

UWP-D27

UWP-D complete wireless audio package with seamless Sony cameras integration.

PWA-RX1

Network RX Station Application

Gallery