Stunning Auto Focus performance 4K HDR camcorders

PXW-Z90, HXR-NX80 4K HDR camcorders

Fast Hybrid AF

Sony extends its line with three compact camcorders featuring Fast Hybrid AF. This breakthrough incorporates maximum of 273 phase-detection AF points covering approx.84% of the image area. The BIONZ® X image processing engine and a new movie AF algorithm with custom focus settings maintain AF tracking under challenging conditions: sports, wildlife, and racing. The touch screen makes it easy to select the focus point. You can also adjust AF Tracking Depth and AF Subject Switching Sensitivity.

Instant HDR workflow with Hybrid Log-Gamma in a compact camcorder

High Dynamic Range (HDR) enables vivid pictures, preserving detail even in bright highlights and deep shadows. Instant HDR takes advantage with Hybrid Log-Gamma encoding. Display your content on HDR monitors – no post processing required.

Simple Live Solution

The cameras work seamlessly with Sony's MCX-500 live producer, the compact, cost-effective switcher that makes it easy for one person to run a multi-camera live event. With the switcher and RM-30BP controller, a Tally icon appears on each camera's LCD panel and viewfinder. A red icon indicates when the shot is live (PGM) while Green indicates preview mode (PVW).

Professional features

- 1.0-type stacked sensor: high sensitivity, resolution and dynamic range
- Stacked CMOS image sensor delivers broadcast-quality 4K and Full HD
- Sony's S-Log2 and S-Log3 recording for extended highlights
- Stunning 120 fps (NTSC)/100fps (PAL) Slow & Quick Motion in XAVC S HD or XAVC HD
- Extended Super Slow Motion at up to 960 fps (NTSC)/1000 fps (PAL)
- Lens ring with increased depth for reliable focus and zoom
- MI Shoe for up to 2 channels of cable-free wireless audio with SMAD-P3D, URX-P03D and matching UWP-D transmitters, sold separately
- 2.4 GHz Wi-Fi capability for USTREAM™ service, wireless remote control
- Touch screen monitor with 1555K dot Extra Fine LCD

- OLED Tru-Finder™ viewfinder: bright, colorful, 2359K dots
- Dual media slots: simultaneous or relay recording
- HDMI® type A connector; REMOTE terminal for connection to the MCX-500 live producer
- Wireless TC Link allow to settle synchronized TC on multiple camcorders (CBKZ-WTCL required)

Broadcast capabilities (PXW-Z90 only)

- Precise 10-bit, 4:2:2 XAVC® L recording in HD
- Professional 3G-SDI output
- 2.4 / 5 GHz Wi-Fi capability for more robust wireless connectivity*1
- QoS live streaming (NETWORK CLIENT MODE)
- Streaming compatibility with Sony's XDCAM air service
- FTP file transfers

*1 PXW-Z90V only
*2 4K: 3840×2160pix. HXR-NX80: Connect this product to a HDR compatible Sony TV via a USB cable when displaying HDR movies. PXW-Z90/HXR-NX80: Connect this product to HDR(HLG) compatible TV via HDMI cable and turn to HDR(HLG) mode by TV when displaying HDR(HLG) movie.

Specifications

		PXW-Z90	HXR-NX80
Imaging Sensor	Imaging Sensor	1.0-type back-illuminated Exmor RS CMOS sensor	
	Effective Picture Elements	Approx. 14.2M megapixels (16:9)*¹/ Approx.12.0M megapixels (3:2)	
Processor	Image Processor	BIONZ X image processor	
Lens	Lens Type	ZEISS Vario-Sonar T*	
	Aperture	F2.8-4.5	
	Optical Zoom	12x	
	Digital Zoom*⁶	192x	
	Clear Image Zoom	4K: 18x/ HD: 24x	
	Focal Distance	f = 9.3-111.6 mm, f = 3/8-4 1/2 in.	
	Focal Length (35 mm equivalent)	f = 29.0-348.0 mm, f = 1 3/16-13 3/4 in. (16:9)*¹	
	Filter Diameter	62 mm, 2 1/2 in.	
	Minimum Focus Distance	Approx.1 cm (Wide), Approx.100 cm (Tele), Approx.13/32 in. (Wide), Approx. 39 3/8 in. (Tele)	
	Aperture Blade	7 blades	
	ND Filter	OFF, 1/4, 1/16, 1/64	
Viewfinder	Type	1.0 cm (0.39 type) OLED / Color 2,359,296 dots equivalent	
LCD	LCD Type	8.8 cm (3.5 type) Xtra Fine LCD (1555K) Wide (16:9)	
	Touch Panel	Yes	
	Brightness Control*⁷	Yes (menu)	
Image Stabilization	Image Stabilization Type	Optical SteadyShot image stabilization with Active mode	
Focus Control	Focus System	Fast Hybrid AF (phase-detection AF / contrast-detection AF)	
	Focus Points	Max. 273 points (phase-detection AF)	
	AF Drive Speed	Yes (7 steps)	
	AF Subject Track Set	Yes (AF Tracking Depth (5 steps), AF Subject Switching Sensitivity (5 steps))	
	AF Modes	Auto/Manual (Touch Panel / Dial)	
	Focus Area	Wide/Zone/Center/Flexible Spot	
	Phase AF Frames	Yes (On/Off)	
Exposure	White Balance Mode	Auto / Onepush A / Onepush B / Outdoor / Indoor / WB Temp	
	Minimum Illumination	[NTSC] Standard:3 lux (1/60 Shutter Speed); Low Lux 1.7lux (1/30 Shutter Speed); NightShot: 0 lux (1/60 Shutter Speed) [PAL] Standard:3 lux (1/50 Shutter Speed); Low Lux 1.7lux (1/25 Shutter Speed); NightShot: 0 lux (1/50 Shutter Speed)	
	Auto Iris Control/Manual Iris Control	F2.8-F11	
	Manual Exposure Assist	Zebra Pattern Display	
Shutter Speed	Auto Control Rnage	[NTSC] 1/8-1/10000 [PAL] 1/6-1/10000	
	Standard	[NTSC] 1/60-1/10000 [PAL] 1/50-1/10000	
	Manual Iris Control	[NTSC] 1/60-1/10000 [PAL] 1/50-1/10000	
	Manual Shutter	[NTSC] 1/8-1/10000 [PAL] 1/6-1/10000	
Advanced Features	Picture Profile	Yes (Off / PP1-PP10) Parameters: Black level, Gamma (Standard, Still, Cine1-4, ITU709, ITU709 (800%), S-Log2, S-Log3, HLG, HLG1-3), Black Gamma, Knee, Color Mode (Standard, Still, Cinema, Pro, ITU709 Matrix, B/W, S-GamutS-Gamut3.Cine, S-Gamut3, BT.2020, 709)	
	Media/Battery Indicator	Yes (recordable time, free and used media space) / Yes (remaining capacity)	
	Wi-Fi (built-in)	Control with Smartphone	
	NFC	One-touch remote	
	Manual Ring	Yes (Zoom/Focus)	
	Assignable Dial	Yes (Iris/Gain/Shutter Speed)	
	Face Detection	Yes	
	NightShot Infrared System	Yes	
	Assignable Button	Yes	
	Color Bar	Yes	
	Streaming capability with XDCAM air	Yes	-
Interface	Wireless LAN (built-in)	2.4 GHz bandwidth/5.2/5.3/5.6/5.8 GHz bandwidth*⁹ (for PXW-Z90V only) 2.4 GHz bandwidth (for PXW-Z90T only)	2.4 GHz bandwidth
	NFC	Yes (NFC forum Type 3 Tag compliant)	
	Memory Card Slot	Slot A: Memory Stick PRO Duo and SD/SDHC/SDXC cards compatible Slot B: SD/SDHC/SDXC cards compatible	
	Multi/Micro USB Terminal*¹⁰	Yes	
	Headphone Jack	Stereo Minijack	
	Microphone Input	Stereo Minijack	
	DC IN	Yes	
	Remote Terminal	integrated into Multi/Micro USB Terminal*⁹, Stereo mini-mini jack (2.5mm)	
	HDMI Terminal	Yes (HDMI Type A)*¹¹	
	Accessory Shoe	Yes (Multi Interface Shoe)	
	Audio Input	XLR-type 3-pin (female) (x2), line/mic/mic +48 V selectable	XLR-type 3-pin (female) (x2), line/mic/mic +48 V selectable
	SDI Output	BNC (x1), 3G/HD/SD SMPTE 424M/292M/259M standard	-
Weights and Measurements	Dimensions (approx.) (W x H x D including supplied battery)*¹²	130.0 x 181.5 x 287.0 mm (With the accessories (lens hood, large eyecup, XLR handle unit) , excluding the grip belt and including the projecting parts) 5 1/8 x 7 1/4 x 11 3/8 inches (With the accessories (lens hood, large eyecup, XLR handle unit) , excluding the grip belt and including the projecting parts)	130.0 x 181.5 x 287.0 mm (With the accessories (lens hood, large eyecup, XLR handle unit) , excluding the grip belt and including the projecting parts) 5 1/8 x 7 1/4 x 11 3/8 inches (With the accessories (lens hood, large eyecup, XLR handle unit) , excluding the grip belt and including the projecting parts)
	Weight (approx.) (main unit only)	Approx. 1020g, Approx. 2 lb 40 oz (including Lens Hood and Large Eyecup)	Approx. 955g, Approx. 2 lb 17 oz (including Lens Hood and Large Eyecup)
	Weight (approx.) (Total)*¹³	Approx. 1390g, Approx. 3 lb 1oz (with lens hood, ,handle, eyecup, NP-FV70A) (supplied battery)	Approx. 1320g, Approx. 2 lb 14.6 oz (with lens hood, ,handle, eyecup, NP-FV70A) (supplied battery)
Power	Battery Type	InfoLITHIUM with AccuPower Meter System (V Series)*¹⁴	
	Charge on camcorder (charging time with supplied Battery)*¹⁵	Yes (Approx. 2 hr. 50 min.)	
	Power Consumption (in viewfinder operation)*¹⁵	4K (QFHD): 6.5 W	4K (QFHD): 5.7 W
	Power Consumption (in LCD operation)*¹⁶	4K (QFHD): 6.9 W	4K (QFHD): 6.1 W
	Power Requirements	7.4V (battery pack); 8.4V (AC Adaptor)	
In the Box	Supplieed Accessory*¹⁷	XLR Handle Unit (1)	
		Rechargeable Battery Pack (NP-FV70A) (1)	
		AC Adaptor (1)	
		Power Cord (1)	
		Remote Commander (RMT-845 with Battery (CR2025)) (1)	Remote Commander (RMT-845 with Battery (CR2025)) (1)
		Lens Hood (1)	
		Lens Cap (1)	
		Large Eyecup (1)	
		Accessory Shoekit (1)	
		USB Cable (1)	

*1 When "STEADYSHOT" is set to "STANDARD" or "OFF". *2 Bit Rate is described by system rate (including movie, sounds and others). *3 FX mode(24Mbps) are peak bitrate. *4 Video mode is AVCHD. *5 Firmware update may be necessary for XAVC S. *6 The factory setting is "Off". Digital zoom ratio includes optical zoom ratio. *7 Backlight brightness will automatically be set "Bright" when connected to AC adaptor. *8 (Configuration method / Access method) WPS or manually /infrastructure mode. When connecting to smartphones, the camera can always work as a base without a wireless access point. (Security: WEP/WPA-PSK/WPA2-PSK) *9 Depending on country/regional regulation *10 Supports Micro USB compatible device. *11 Output only *12 Including lens hood if it is supplied *13 Including a battery pack and a media (if a lens hood is supplied, including it too.). *14 Except for NP-FV30 *15 When using supplied AC adapter. When the AC adaptor is not supplyed, using USB charging. *16 Recording mode and media are default settings. *17 The numbers in ( ) are the supplied quantity

Recording Mode List

FILE FORMAT	Resolution	REC FORMAT		Bit Rate	XDCAM	NXCAM
		Frame Rate			PXW-Z90V	HXR-NX80
		NTSC	PAL			
XAVC QFHD	3840x2160	30/24p	25p	100/60Mbps	✔	-
XAVC HD	1920x1080	60i	50i	50/35/25Mbps	✔	-
		60/30/24p	50/25p	50/35Mbps		
	1280x720	60p	50p	50Mbps		
MPEG HD 422	1920x1080	60i, 30/24p	50i, 25p	50Mbps	✔ *Required CBKZ-SLMP	-
	1280x720	60p	50p			
MPEG HD 420	1920x1080	60i, 30/24p	50i, 25p	HQ (35Mbps)		
	1440x1080	60i	50i			
	1280x720	60p	50p			
XAVC S 4K	3840x2160	30/24p	25p	100/60Mbps	-	✔
XAVC S HD	1920x1080	120p	100p	100/60Mbps		
		60p	50p	50/25Mbps		
		30p	25p	50/16Mbps		
		24p	-	50Mbps		
AVCHD	1920x1080	60p	50p	PS (28Mbps)	✔	✔
		60i	50i	FX (24Mbps)/FH (17Mbps)		
		30/24p	25p	FX (24Mbps)		
	1440x1080	60i	50i	LP (5Mbps)		
	1280x720	60p	50p	HQ (9Mbps)		

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