

# SONY

## New Products Information

Interchangeable-lens  
digital camera



Inspired worlds wait to be revealed

# α 9

Exmor RS CMOS Sensor BIONZ X 4D FOCUS

BE MOVED

 **Sony  
Overseas  
Models**

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### Safety Cautions

To ensure correct use of this product, read the "Instruction Manual" prior to use. Failure to follow all safeguards can result in fire, electric shock, or other accidents. Do not use headphones while driving and cycling, etc.

# Main specifications of α9

General	Camera Type	Interchangeable-lens digital camera
	Lens Mount	E-mount
Image sensor	Aspect Ratio	3:2
	Type	35mm full frame (35.6×23.8mm), Exmor RS CMOS sensor
	Number of Pixels	Approx. 24.2 megapixels (Effective), Approx. 28.3 megapixels (Total)
	Anti-Dust System	Charge protection coating on optical filter and image sensor shift mechanism
Recording (still images)	Recording Format	JPEG (DCF Ver. 2.0, Exif Ver.2.31, MPF Baseline compliant), RAW (Sony ARW 2.3 format)
	Image Size (pixels) [3:2]	35mm full frame L: 6000 x 4000 (24M), M: 3936 x 2624 (10M), S: 3008 x 2000 (6.0M), APS-C L: 3936 x 2624 (10M), M: 3008 x 2000 (6.0M), S: 1968 x 1312 (2.6M)
	Image Size (pixels) [16:9]	35mm full frame L: 6000 x 3376 (20M), M: 3936 x 2216 (6.7M), S: 3008 x 1688 (5.1M), APS-C L: 3936 x 2216 (6.7M), M: 3008 x 1688 (5.1M), S: 1968 x 1112 (2.2M)
	Image Quality Modes	RAW, RAW & JPEG, JPEG Extra fine, JPEG Fine, JPEG Standard
	Picture Effect	8 types: PostORIZATION (Color, B&W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key, Rich-tone Monochrome
	Creative Style	Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia,Style Box (1-6), (Contrast (-3 to +3 steps), Saturation (-3 to +3 steps), Sharpness (-3 to +3 steps))
	Dynamic Range Functions	Off, Dynamic Range Optimizer (Auto/Level (1-5)), Auto High Dynamic Range (Auto Exposure Difference, Exposure Difference Level (1-6 EV, 1.0 EV step))
	Color Space	sRGB standard (with sYCC gamut) and Adobe RGB standard compatible with TRILUMINOS Color Yes
	RAW Output	Uncompressed RAW Yes
	Uncompressed RAW	Yes
Recording (movie)	Recording Format	XAVC S, AVCHD format Ver. 2.0 compliant, MP4
	Video Compression	XAVC S: MPEG-4 AVC/H.264, AVCHD: MPEG-4 AVC/H.264, MP4: MPEG-4 AVC/H.264
	Audio Recording Format	XAVC S: LPCM 2ch, AVCHD: Dolby Digital (AC-3) 2ch, Dolby Digital Stereo Creator, MP4: MPEG-4 AAC-LC 2ch
	Color Space	xvYCC standard (x.v.Color when connected via HDMI cable) compatible with TRILUMINOS Color
	Picture Effect	PostORIZATION (Color, B&W), Pop Color, Retro Photo, Partial Color (R/G/B/Y), High Contrast Monochrome, Toy Camera (Normal/Cool/Warm/Green/Magenta), Soft High-key
	Creative Style	Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn leaves, Black & White, Sepia,Style Box(1-6), (Contrast (-3 to +3 steps), Saturation (-3 to +3 steps), Sharpness (-3 to +3 steps))
	Image Size (Pixels), NTSC	XAVC S 4K: 3840 x 2160 (30p, 100M), 3840 x 2160 (24p, 100M), 3840 x 2160(30p, 60M), 3840 x 2160 (24p, 60M) XAVC S HD: 1920 x 1080 (120p, 100M), 1920 x 1080 (120p, 60M), 1920 x 1080 (60p, 50M), 1920 x 1080 (30p, 50M), 1920 x 1080 (24p, 50M) AVCHD: 1920 x 1080 (60p, 28M, PS), 1920 x 1080 (60, 24M, FX), 1920 x 1080 (60i, 17M, FH), 1920 x 1080 (24p, 24M, FX), 1920 x 1080 (24p, 17M, FH) MP4: 1920 x 1080 (60p, 28M), 1920 x 1080 (30p, 16M), 1280 x 720 (30p, 6M)
	Image Size (pixels), PAL	XAVC S 4K: 3840 x 2160 (25p, 100M), 3840 x 2160 (25p, 60M) XAVC S HD: 1920 x 1080 (100p, 100M), 1920 x 1080 (100p, 60M), 1920 x 1080 (50p, 50M), 1920 x 1080 (25p, 50M) AVCHD: 1920 x 1080(50p, 28M, PS), 1920 x 1080(50i, 24M, FX), 1920 x 1080(50i, 17M, FH), 1920 x 1080 (25p, 24M, FX), 1920 x 1080 (25p, 17M, FH) MP4: 1920 x 1080 (50p, 28M), 1920 x 1080 (25p, 16M), 1280 x 720 (25p, 6M)
	Slow & Quick motion (S&Q) Record Setting	NTSC mode: 1920x1080 (60p, 30p, 24p) PAL mode: 1920x1080 (50p, 25p)
	Slow & Quick motion (S&Q) Frame Rate	NTSC mode: 1fps,2fps,4fps,8fps,15fps,30fps,60fps,120fps PAL mode: 1fps,2fps,3fps,6fps,12fps,25fps,50fps,100fps
Movie Functions		
HDMI Output		3840 x 2160 (25p), 1920 x 1080 (50p), 1920 x 1080 (50i), 1920 x 1080(24p), 1920 x 1080 (60p), 1920 x 1080 (60i), 3840 x 2160 (30p), 3840 x 2160 (24p), YCbCr 4:2:2 8bit / RGB 8bit
Recording system	Location information Link from smartphone	Yes
	Media	Memory Stick PRO Duo, Memory Stick PRO-HG Duo, Memory Stick Micro (M2), SD memory card, SDHC memory card (UHS-I/II compliant), SDXC memory card (UHS-I/II compliant), microSD memory card, microSDHC memory card, microSDXC memory card
Memory Card Slot		SLOT1 : Slot for SD(UHS-I/II compliant) memory card, SLOT2 : Multi slot for Memory Stick Duo / SD (UHS-I compliant) memory card
	Recording mode on 2 memory cards	Simult. Rec (Still), Simult. Rec (Movie), Simult. Rec (Still/Movie), Sort (JPEG/RAW), Sort (Still/Movie), Copy
Noise reduction	Noise Reduction	Long exposure NR: On/Off, available at shutter speeds longer than 1 sec., High ISO NR: Normal/Low/Off
White Balance	White Balance Modes	Auto / Daylight / Shade / Cloudy / Incandescent / Fluorescent (Warm White / Cool White / Day White / Daylight) / Flash / Underwater / Color Temperature (2500 to 9900K) & color filter (G7 to M7:57 steps, A7 to B7: 29 steps) / Custom
	AWB Micro Adjustment	G7 to M7 (57 steps), A7 to B7 (29 steps)
Priority Set in AWB		Yes
	Bracketing	3 frames, H/L selectable
Focus	Focus Type <sup>1)</sup>	Fast Hybrid AF (phase-detection AF/contrast-detection AF)
	Focus Sensor	Exmor RS CMOS sensor
Focus Point		35mm full frame: 693 points (phase-detection AF), APS-C mode with FE lens: 299 points (phase-detection AF), with APS-C lens: 221 points (phase-detection AF) / 25 points (contrast-detection AF)
Focus Sensitivity Range		EV-3 to EV20 (ISO 100 equivalent with F2.0 lens attached, AF-S)
	Focus Mode	AF-S (Single-shot AF), AF-C (Continuous AF), DMF (Direct Manual Focus), Manual Focus
Focus Area		Wide (693 points (phase-detection AF), 25 points(contrast-detection AF)) / Zone / Center / Flexible Spot (S/M/L) / Expanded Flexible Spot / Lock-on AF (Wide / Zone / Center / Flexible Spot (S/M/L) / Expanded Flexible Spot)

## Trademarks & Remarks

• “αC”, “Exmor”, “Exmor RS”, “BIONZ X”, “BRAVIA”, “SteadyShot”, “InfoLithium”, “Tru-Finder”, “Memory Stick”, “Memory Stick PRO Duo”, “Memory Stick PRO-HG Duo”, “PlayMemories Home”, “PlayMemories Mobile”, “x.v.Color”, “TRILUMINOS”, “TRILUMINOS Color”, “TRILUMINOS Display” and “XAVC S” are trademarks or registered trademarks of Sony Corporation. • “AVCHD” and “AVCHD Progressive” are trademarks of Panasonic Corporation and Sony Corporation. • The SD Logo, SDHC Logo and SDXC Logo are trademarks of SD-3C, LLC. • “HDMI”, “HDMI High-Definition Multimedia Interface”, and the HDMI logo are trademarks or registered trademarks of the HDMI Licensing Administrator, Inc., in the U.S.A and other countries. • The Wi-Fi Protected Setup Identifier Mark is a mark of the Wi-Fi Alliance. • N-Mark is a registered trademark made the NFC Forum. • Dolby is a trademark of Dolby Laboratories. • WhiteMagic is a trademark of Japan Display Inc. • App Store is a service mark of Apple Inc. • Android, Google Play and Google Play logo are trademarks or registered trademarks of Google Inc. • iPad is a trademark of Apple Inc., registered in the U.S. and other countries. • All other company and product names mentioned herein are used for identification purposes only and may be the trademarks or registered trademarks of their respective owners. • “InfoLithium” is a lithium battery pack which can exchange data with compatible electronic equipment about its energy consumption. • Sony recommends that you use the battery pack with electronic equipment bearing the “InfoLithium” mark. • Screen displays and effects used to illustrate some functions are simulated.

Focus	Other Features	Eye-start AF (only with LA-EA2 or LA-EA4 attached (Sold separately)), Lock-on AF, Eye AF, AF micro adjustment (with separately sold LA-EA2 or LA-EA4), Predictive control, Focus lock, AF Track Sens, Swt V/H/ AF Area, AF Area Regist.
	AF Illuminator	Yes (with Built-in LED)
	AF Illuminator range	Approx. 0.3m - approx. 3.0m (with FE 28-70mm F3.5-5.6 OSS attached)
	Focus type with LA-EA3 (Sold separately)	selectable (phase-detection, contrast-detection)
Exposure	Metering Type	1200-zone evaluative metering
	Metering Sensor	Exmor RS CMOS sensor
	Metering Sensitivity	EV-3 to EV20 (at ISO100 equivalent with F2.0 lens attached)
	Metering Mode	Multi-segment, Center-weighted, Spot, Spot Standard/Large, Entire Screen Avg., Highlight
	Exposure Compensation	+/- 5.0EV (1/3 EV, 1/2 EV steps selectable), (with exposure compensation dial : +/- 3EV (1/3 EV steps))
	Exposure Bracketing	Bracket: Cont., Bracket: Single, 3/5/9 frames selectable. With 3 or 5 frames, in 1/3, 1/2, 2/3, 1.0, 2.0, or 3.0 EV increments, with 9 frames, in 1/3, 1/2, 2/3, or 1.0 EV increments.
	AE Lock	Locked when shutter button is pressed halfway. Available with AE lock button. (On/Off/Auto)
	Exposure Modes	AUTO(Auto), Programmed AE (P), Aperture priority (A), Shutter-speed priority (S), Manual (M), Movie (Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M)), Slow & Quick Motion (Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M))
	ISO sensitivity (Recommended Exposure Index)	(Still images), Mechanical Shutter: ISO 100-51200 (ISO numbers up from ISO 50 to ISO 204800 can be set as expanded ISO range.), AUTO (ISO 100-6400, selectable lower limit and upper limit), Electronic Shutter: ISO 100-25600 (ISO numbers up from ISO 50 can be set as expanded ISO range.), AUTO (ISO 100-6400, selectable lower limit and upper limit) (Movies) ISO 100-51200 equivalent (ISO numbers up to ISO 102400 can be set as expanded ISO range.),AUTO (ISO 100-6400, selectable lower limit and upper limit)
Viewfinder	Viewfinder Type	Quad-VGA OLED, 1.3 cm (0.5 type) electronic viewfinder (color)
	Number of Dots	3,686,400 dots
	Brightness Control (Viewfinder)	Auto/Manual (5 steps between -2 and +2)
	Color Temperature Control	Manual (5 steps)
	Field Coverage	100%
	Magnification	approx. 0.78 x (with 50mm lens at infinity, -1 m <sup>-1</sup> )
	Dioptr Adjustment	-4.0 to +3.0m <sup>-1</sup>
	Eye Point	Approx. 23mm from the eyepiece lens, 18.5mm from the eyepiece frame at -1m <sup>-1</sup> (CIPA standard)
	Finder Frame Rate Selection	STD 60fps / H 120fps
	Display Content	Graphic Display, Display All Info., No Disp. Info., Digital Level Gauge, Histogram
LCD Screen	Type	7.5cm (3.0-type) TFT
	Number of Dots	1,440,000 dots
	Touch Panel	Yes
	Brightness Control	Manual (5 steps between -2 and +2), Sunny Weather mode
	Adjustable Angle	Up by approx. 107 degrees, Down by approx. 41 degrees
	Display Selector (Finder/LCD)	Yes (Auto/Manual)
	Real-time Image Adjustment Display (LCD)	On/Off
	Quick Navi	Yes
	Focus Magnifier	Yes (35mm full frame: 4.7x, 9.4x APS-C: 3.1x, 6.2x)
	Zebra	Yes (selectable level + range or lower limit as custom setting)
	Peaking MF	Yes (Level setting: High/Mid/Low/Off, Color: White/Red/Yellow)
	Others	WhiteMagic, Grid Line, Rule of 3rds Grid/Square Grid/Diag. + Square Grid/Off), Movie Marker, (Center/Aspect/Safety Zone/Guide/frame)
	Display Contents	Graphic Display, Display All Info, No Disp. Info, Digital Level Gauge, Histogram, For viewfinder
Other Features	Clear Image Zoom	Still images: Approx. 2x, Movies: Approx. 2x
	Digital Zoom	[Smart zoom (Still images)] 35mm full frame: M: approx 1.5x, S: approx 2x, APS-C: M: approx 1.3x, S: approx 2x, [Digital zoom (Still images)] 35mm full frame L: approx 4x, M: approx 6.1x, S: approx 8x, APS-C L: approx 4x, M: approx 5.2x, S: approx 8x, [Digital zoom (Movies)] 35mm full frame: approx 4x, APS-C: approx 4x
	Face Detection	Movie: On/On (Regist. Faces/Off, Face registration, Face selection, Max. number of detectable: 8
	Others	Touch Focus: Yes (Available with LCD monitor operation), ISO AUTO Min. SS, Bright Monitoring, Copyright Info, Set File Name, Help guide, Area Setting, Shop Front Mode, Video Light Mode, Zoom Ring Rotate
Shutter	Type	Electronically-controlled, vertical-traverse, focal-plane type
	Shutter Type	Auto / Mechanical shutter / electronic shutter
	Shutter Speed	[Still images, Single shot]: Mechanical Shutter: 1/8000 to 30 sec. Bulb, AUTO: 1/32000 to 30 sec. Bulb, Electronic Shutter: 1/32000 to 30 sec. [Still images, Continuous shooting]: Mechanical Shutter: 1/8000 to 30 sec, AUTO and Electronic Shutter: 1/32000 to 1/8 sec. (Movies): 1/8000 to 1/4(1/3 steps) up to 1/60 in AUTO mode (up to 1/30 in Auto slow shutter mode)
	Flash Sync. Speed <sup>3)</sup>	1/250 sec.
	Electronic Front Curtain Shutter	Yes (ON/OFF)
	Silent Shooting	Yes (Electronic Shutter)
Image Stabilization	Type	Image Sensor-Shift mechanism with 5-axis compensation (Compensation depends on lens specifications)
	Compensation Effect	5.0 stops (based on CIPA standard. Pitch/Yaw shake only. With Planar T* FE 50mm F1.4 ZA lens mounted. Long exposure NR off.)
Flash Control	Control	Pre-flash <sup>4)</sup> TTL
	Flash Compensation	+/- 3.0 EV (switchable between 1/3 and 1/2 EV steps)
	Flash Bracketing	3/5/9 frames selectable. With 3 or 5 frames, in 1/3, 1/2, 2/3, 1.0, 2.0, 3.0 EV increments, with 9 frames, in 1/3, 1/2, 2/3, 1.0 EV increments.
	Flash Modes	Flash off, Autoflash, Fill-flash, Slow Sync., Rear Sync., Red-eye reduction (on/off selectable), Wireless <sup>5)</sup> , Hi-speed sync <sup>6)</sup> .

Flash Control	External Flash Compatibility	Sony α System Flash compatible with Multi Interface Shoe, attach the shoe adaptor for flash compatible with Auto-lock accessory shoe
	FE Level Lock	Yes
	Wireless Control	Yes (light signal/radio signal)
Drive	Drive Modes	Single Shooting, Continuous shooting (Hi/Mid/Lo selectable), Self-timer, Self-timer (Cont.), Bracket, Single, Bracket, Cont., White Balance bracket, DR0 bracket
	Continuous Drive Speed (approx. max.) <sup>8)</sup>	Electronic Shutter: Continuous shooting: Hi: max. 20 fps, Mid: max. 10fps, Lo: max. 5 fps <sup>7*)</sup> Mechanical Shutter: Continuous shooting: Hi: max. 5 fps, Mid: max. 5fps, Lo: max. 2.5 fps
	No. of recordable frames (approx.) <sup>8)</sup>	362 frames (JPEG Extra fine L), 362 frames (JPEG fine L), 362 frames (JPEG standard L), 241 frames (RAW), 222 frames (RAW & JPEG L), 128 frames (RAW (Uncompressed)), 118 frames (RAW (Uncompressed) & JPEG)
	Self-Timer	10 sec. delay/5 sec. delay/2 sec. delay/Continuous self-timer (3 frames after 10 sec. delay/ 5 frames after 10 sec. delay/3 frames after 5 sec. delay/5 frames after 5 sec. delay/3 frames after 2 sec. delay/5 frames after 2 sec. delay/Bracketing self-timer (Off/2 sec. delay/5 sec. delay/10sec. delay)
Playback	Photo Capture Modes	Single (with or without shooting information Y RGB histogram & highlight/shadow warning), 9/25-frame index view, Enlarged display mode (L: 15.Dx, M: 9.84x, S: 7.52x), Auto Review (10/5/2 sec. Off), Image orientation (Auto/Manual/Off selectable), Slideshow, Folder selection (Date/Still/MP4/ AVCHD/XAVC S HD/XAVC S 4K), Forward/Rewind (movie), Delete, Protect
Interface	PC Interface	Mass-storage, MTP, PC remote
	Multi / Micro USB Terminal <sup>10)</sup>	Yes (NFC forum Type 3 Tag compatible), One-touch remote, One-touch sharing
	NFC™	Yes (NFC forum Type 3 Tag compatible), One-touch remote, One-touch sharing
	Wireless LAN (Built-in)	Wi-Fi Compatible, IEEE 802.11b/g/n/2.4GHz band <sup>11)</sup> , View on Smartphone: Yes, Send to Computer: Yes, View on TV: Yes
	Bluetooth	Yes (Bluetooth Standard Ver. 4.1 (2.4GHz band))
	HD Input	HDMI movie connector (Type-D), BRAVIA Sync (Control for HDMI), PhotoTV HD, 4K movie output/4K still image PB
	Multi Interface Shoe	Yes
	Mic Terminal	Yes (3.5 mm Stereo minijack)
	Sync Terminal	Yes
	Headphone Terminal	Yes (3.5 mm Stereo minijack)
Audio	Vertical Grip Connector	Yes
	PC Remote	Yes
	LAN Terminal	Yes
Microphone		Built-in stereo microphone or XLR-K2M/XLR-K1M/ECM-KYST1M (sold separately)
	Speaker	Built-in, monaural
Print	Compatible Standards	Exif Print, Print Image Matching II, DPOF setting
Custom function	Type	Custom key settings, Programmable setting, My Menu, Reg Cust Shooting Set
	Memory Function	Yes (Body 3 sets /memory card 4 sets)
Lens Compensation	Setting	Peripheral Shading, Chromatic Aberration, Distortion
Power	Supplied Battery	One rechargeable battery pack NP-FZ100
	Battery Life (Still Images) <sup>12)</sup>	Approx. 480 shots (Viewfinder) / approx. 650 shots (LCD monitor) (CIPA standard)
	Battery Life (Movie, actual recording) <sup>13-14)</sup>	Approx. 105 min (Viewfinder) / Approx. 120 min (LCD monitor) , (CIPA standard)
	Battery Life (Movie, continuous recording) <sup>13-15)</sup>	Approx. 185 min (Viewfinder) / Approx. 195 min (LCD monitor), (CIPA standard)
	USB Power supply	Yes
Size & Weight	Weight (with battery and memory card included)	Approx. 673 g (approx. 1 lb 7.7 oz)
	Weight (Body only)	Approx. 588 g (approx. 1 lb 4.7 oz)
	Dimensions (W x H x D)	Approx. 126.9mm x 95.6mm x 63.0mm (approx. 5 x 3 7/8 x 2 1/2 in.)
Operating Temperature	Range	32°- 104°F / 0 - 40°C

## Specifications and features are subject to change without notice.

- <sup>\*1</sup> When using phase-detection AF, limited lenses will be compatible initially. Expansion is planned by body firmware update.
- <sup>\*2</sup> 1/32000 shutter speed is available only in the S and M modes (there are no intermediate settings between 1/16000 and 1/32000). The highest shutter speed in all other modes is 1/16000.
- <sup>\*3</sup> With compatible Sony external flash
- <sup>\*4</sup> A flash cannot be used when [Shutter Type] is set to [Electronic Shut.]. A flash can be used during continuous shooting with [Shutter Type] set to [Auto]. The mechanical shutter will be used.
- <sup>\*5</sup> With compatible external flash
- <sup>\*6</sup> Varies according to shooting conditions or memory card used.
- <sup>\*7</sup> When A-mount lens is used via mount adapter, the speed of continuous shooting varies depending on the attached lens.
- <sup>\*8</sup> When the Focus Mode is set to AF-C (Continuous AF), the speed of continuous shooting varies depending on the attached lens. See Sony support page for compatibility details.
- <sup>\*9</sup> During uncompressed RAW shooting, 12 images are shot per second at maximum.
- <sup>\*10</sup> Supports Micro USB compatible device.
- <sup>\*11</sup> 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)
- <sup>\*12</sup> The LCD screen is turned on, shot once every 30 seconds, operate zoom alternately between W and T ends, flash strobe once every two times, turn power off and on once every ten times.
- <sup>\*13</sup> Continuous movie recording is possible for approximately 29 minutes (limited by product specifications).
- <sup>\*14</sup> Indication recording time, which is defined by repeating the cycle: Power on, start recording, zoom , stand-by and power off.
- <sup>\*15</sup> The total movie recording time. When the limit of the continuous movie recording time (29 minutes) is reached, let the camera continue movie recording by pressing the MOVIE button again. No other operation such as zoom are performed.

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