### ILCE-7RM4/B

#### Alpha 7R IV Full-frame Mirrorless Interchangeable-Lens Camera

Thanks to an evolutionary leap in image processing power and efficiency, the Alpha 7R IV combines world's first<sup>1</sup> high-resolution 61MP<sup>2</sup> back-illuminated Exmor R<sup>®</sup> CMOS image sensor with impressive shooting speeds at up to 10 fps<sup>4</sup> with full AF/AE tracking, as well as beautiful 4K<sup>8</sup> HDR video, wide 15-stop<sup>3</sup> dynamic range and high sensitivity with area specific noise reduction.



#### Key Features

#### World's first<sup>1</sup> 61MP<sup>2</sup> pixels full-frame sensor

The Alpha 7R IV features the world's first<sup>1</sup> 35mm full-frame back-illuminated CMOS image sensor with 61MP<sup>2</sup> effective pixels, delivering depth and dimension that was once only available in medium-format cameras. The back-illuminated structure and effective area specific noise reduction techniques combine to deliver an extraordinary blend of low noise and high sensitivity for enormous imaging potential.

#### 15-stop<sup>3</sup> dynamic range

The Alpha 7R IV boasts an impressive 15-stop<sup>3</sup> dynamic range at low sensitivities, resulting in smooth natural gradations ranging from deep shadows to highlights, and utilizes algorithms from many of the latest Alpha<sup>™</sup> cameras to maintain outstanding color reproduction.

#### **BIONZ X processing maximizes sensor potential**

Advanced Detail Reproduction Technology and Area-specific Noise Reduction - both features of Sony's BIONZ X image processing engine - have been carefully tuned to maximize the performance of a sensor that offers approximately 1.5 times more resolution than the highly acclaimed Alpha 7R III, achieving extremely fine, realistic reproduction of textures and details.

#### Low noise at High ISO

A standard ISO range that extends from ISO 100 up to ISO 32000 with undiminished quality is expandable to ISO 50 to ISO 102400 for still images, make it possible to achieve optimum image quality in just about any light. Noise is effectively minimized even at high sensitivities, maintaining excellent image quality even with this sensor's high pixel count.

#### 16-bit processing and 14-bit RAW output

Image sensor output is processed in 16-bit form by the front-end LSI and BIONZ X image processing engine before being output as compressed or uncompressed 14-bit RAW files that have smoother, more natural gradations for higher overall image quality. 14-bit RAW output is available even when shooting in silent or continuous mode<sup>11</sup>.

#### Serious speed up to 10fps4 with AF/AE tracking

An advanced mechanical shutter unit and updated image processing algorithms allow the innovative new full-frame Alpha 7R IV to shoot full 61MP<sup>2</sup> resolution images at up to 10 fps<sup>4</sup> with continuous and accurate autofocus and auto exposure (AF/AE) tracking for up to approximately seven seconds in JPEG and RAW, and approx. three times as long in 26.2MPii APS-C crop mode. These high-speed options ensure that fast moving subjects can be captured with extreme accuracy and incredible image detail.

#### 4D FOCUS - Wide, fast, reliable AF gets the shot

The new image sensor in the Alpha 7R IV features 567 phase detection points in a highdensity focal plane phase-detection AF system, covering approximately 99.7% of the image area vertically and 74.0% horizontally. High-density focal plane phase-detection works with 425 contrast AF points in a Fast Hybrid AF system that can handle a huge volume of data at high speed, snapping rapidly into focus with just about any subject and situation. Tracking performance has been improved too, despite the significant increase in resolution.

#### **Real-time Autofocus Tracking<sup>5</sup>**

Real-time Tracking<sup>5</sup> is a state-of-the-art feature that employs artificial intelligence to tenaciously track moving subjects when shooting stills or movies. Accurate focus is maintained automatically while the shutter button is half-pressed. The subject to be tracked can also be specified by touching it on the monitor when the Touch Tracking function is engaged. An advanced subject recognition algorithm uses color, pattern (brightness), and subject distance (depth) data to process spatial information in real time. If the subject is a person, Al is used to detect and keep track of the subject's eye and face in real time for extremely high tracking precision. The focus area will seamlessly change between face and eye according to the condition of the subject.

#### **Real-time Eye AF**

Real-time Eye AF employs artificial intelligence to detect and process eye data in real time, and track the subject's eye with unprecedented precision. This function can be activated via an assigned custom key, or by simply pressing the AF-ON button or half-pressing the shutter button. When used with the Real-time Tracking function, tracking will continue even if the camera is temporarily unable to locate the subject's eye, so it is easier than ever to shoot dynamic portraits of moving subjects. In addition to automatic eye selection when using Eye AF, it is also possible to manually preselect the subject's right or left eye<sup>5</sup>.

#### Real-time Eye AF for animals<sup>6</sup>

Advanced Al-based subject recognition technology now allows fast, precise, automatic detection and tracking of animal eyes6. This new capability can vastly increase success rates when photographing animals in a variety of settings or pets at home. Real-time Eye AF animal mode can be initiated either by pressing an assigned custom button or by half-pressing the shutter button.

#### Real-time Eye AF for movies<sup>5</sup>

The Alpha 7R IV debuts Real-time Eye AF for movie shooting<sup>5</sup>, a first in any of Sony's cameras. When activated, human eyes are automatically identified and precisely tracked with high precision and reliability, allowing the shooter to focus on the content itself as opposed to what is in focus or not. The same Touch Tracking functionality that is provided for stills is also available for movie shooting, easily initiating Real-time Eye AF tracking on a specified eye. Right/left eye selection is available for movies too.

#### Reliable low-vibration shutter

The shutter unit assembly has been carefully re-designed to reduce even the slightest movement that may cause blur, which is critical with high resolution sensors. Shutter vibration that can cause blur is reduced to a minimum, even when shooting continuous bursts at up to 10 frames per second, thanks to a new shutter unit with a fast-response coreless motor. The system also includes a brake that subdues mechanical front and rear curtain shutter vibration, and dampers that absorb mechanical shock. Low shutter vibration is critical to achieving full quality from the camera's high-resolution image sensor. The shutter is also quiet, and has been tested for durability in excess of 500,000 shutter cycles.

#### Silent shooting

In addition to the mechanical shutter, the Alpha 7R IV has an electronic shutter<sup>12</sup> that operates without moving parts for silent, vibration-free shooting. This also makes it easier to elicit maximum performance from the camera's high-resolution sensor.

#### 5-axis image stabilization

A precision stabilization unit and gyro sensors work with refined image stabilization algorithms to achieve up to a 5.5-step<sup>13</sup> shutter speed advantage that also supports the high-resolution capabilities of the 61-megapixel sensor. Camera shake is effectively compensated on 5 axes: pitch and yaw, X and Y shift and roll. The live view image is also stabilized while shooting stills, making it easier to frame and focus when using a telephoto or macro lens. In-body image stabilization means that effective stabilization can be achieved with a wide range of lenses. 5-axis image stabilization is effective for movies as well as stills.

#### 5.76 million-dot<sup>2</sup> UXGA OLED Tru-Finder

The Alpha 7R IV boasts a 5.76 million dot UXGA OLED Tru-finder EVF - Sony's highest resolution viewfinder ever - at about 1.6x the resolution of the EVF in the Alpha 7R III. This new viewfinder provides an extremely accurate, true-to-life depiction of the scene being framed. The display quality can be set to 'Standard' or 'High' mode, and to either 60 fps or 120 fps refresh rate that provides a smooth viewfinder image with minimum display motion blur when shooting moving subjects. The eyepiece window is fluorine coated to repel fingerprints and grime, and make it easier to clean.

#### 16-image Pixel Shift Multi Shooting<sup>7</sup>

When even higher resolution is needed, Pixel Shift Multi Shooting<sup>7</sup> takes advantage of the advanced in-body image stabilization system to capture multiple pixel-shifted images that are later composited using Sony's "Imaging Edge™" desktop application to achieve overwhelming resolution in a single image. In addition to 4-image composites, the Alpha 7R IV is capable of producing 16-image composites with approximately 240.8 million pixels (19008 x 12672 pixels) from data that is equivalent to approximately 963.2 million pixels. The result is photographs with detail and presence that are simply stunning. Resolution, color, and material textures are astonishingly realistic even when the image is enlarged by more than 100% and ideal for photographing architecture, art or any other still life subject.

#### Record reality in spectacular 4K<sup>8</sup>

In addition to its impressive still image capabilities, the new Alpha 7R IV performs exceptionally well as a serious filmmaking tool, offering 4K (3840x2160 pixels) video<sup>8</sup> recording across the full width of the image sensor, and full pixel readout without pixel binning in Super 35mm mode<sup>9</sup>. This ensures high quality 4K footage with exceptional detail and depth. S-Log 2 and S-Log 3 are also available to maximize color grading flexibility, with S-Log 3 offering a total of 14-stops of dynamic range. HLG (Hybrid Log-Gamma) is available on the Alpha 7R IV as well to support an Instant HDR workflow.

#### Touch Tracking for movies

Touch Tracking is beneficial for movie recording. Touch the subject to be tracked on the monitor, and the Real-time Tracking function will then process color, pattern (brightness), distance (depth), and face information to precisely and smoothly track the selected subject at the specified sensitivity and speed. It is also possible to half-press the shutter button or press the AF ON button while shooting to achieve fast focus (AF-S). This can be an advantage for weddings or documentaries, where there is only one chance to capture a scene. In such cases the focus area selected in advance is applied.

#### Wireless tethering (PC Remote for Professional Workflow

Wireless connectivity and PC Remote shooting let the photographer move around with fewer restrictions for a smoother, more efficient setup and workflow. The ability to connect the camera and computer via 2.4 GHz or 5 GHz Wi-Fi<sup>15</sup> provides the versatility, reliability, and speed needed to transfer image data to the computer while shooting images in continuous mode. With the camera and computer connected using Sony's Imaging Edge "Remote" software application (Ver. 2.0 or later), it is easier than ever to shoot, change camera settings, and transfer and store still images. In addition to wirelessly connecting the camera directly to the computer, the connection can be made via a wireless access point for compatibility with a variety of network environments.

#### Super speed USB Type-C<sup>™</sup>

In addition to high speed Wi-Fi® and wireless PC connectivity<sup>15</sup>, the Alpha 7R IV is equipped with a SuperSpeed USB (USB 3.2 Gen 1) USB Type-C<sup>™</sup> connector that supports extremely fast wired data transmission, with almost doubled data transfer speed achieved in combination with Sony's Imaging Edge software (compared to the Alpha 7R III), plus FTP data transfer with background transfer capability, allowing images to be sent to a specified FTP remote server while the photographer is still shooting or reviewing images.

#### Imaging Edge desktop applications

To support an efficient, high speed, connected professional workflow, Sony has announced version 2.0 of its "Imaging Edge" desktop applications. Use "Remote" to control and monitor shooting live on your PC screen; "Viewer" to quickly preview, rate, and select photos from large image libraries; and "Edit" to develop RAW data into high-quality photos for delivery. Get the best from Sony RAW files, and manage your productions more efficiently. The Pixel Shift Multi Shooting feature can also be used while the camera and PC are tethered, and the pixel-shifted images can be immediately composited and viewed. To maximize convenience in image transfer, when utilizing the latest version of Sony's Imaging Edge Mobile™ application, the camera can now transfer images to a connected smartphone even if the camera's power is set to OFF. Refer to the download page for details: http://www.sony.net/disoff/d/

#### Enhanced dust and moisture resistance<sup>14</sup>

Dust and moisture resistance<sup>14</sup> have been significantly improved with refinements throughout the body. Additional sealing is provided at all body seams as well as the battery compartment cover, and the media slot now has a double sliding cover rather than the previous hinged cover to keep water out. A redesigned lens lock button and additional cushioning around the mount further contribute to outstanding reliability in challenging outdoor conditions. Importantly, all of this has been accomplished in a body that is about the same size as the Alpha 7R III.

#### Designed and built for durability

Body durability has been enhanced by the use of a lightweight, high-rigidity magnesium alloy for the top cover, front cover, internal frame, and rear cover. Attachment points and rigidity at the lens mount are ample too, providing the strength needed for heavy lenses. In addition, to minimize stress when shooting for long periods of time and/or with long telephoto lenses, the grip area has been redesigned for greater comfort and surer hold. Ample room is provided for the little finger, and overhang in the middle finger area has been increased.

#### **Dual UHS-II slots**

The Alpha 7R IV has two media slots that are both compatible with UHS-I and UHS-II SD cards for higher overall capacity and faster read/write speeds. Data can be simultaneously recorded to both cards for backup, RAW/JPEG and stills/movies can be recorded to different cards, or recording can be automatically switched to the second card when the first becomes full.

#### Extended endurance

Sony's high-capacity Z batteries and circuitry designed for low power consumption make it possible to shoot up to 670 still images when using the LCD monitor or 530 images when using the viewfinder on a single charge, despite substantial increases in sensor and EVF resolution. For even more uninterrupted operating time, the optional VG-C4EM Vertical Grip holds two NP-FZ100 batteries. The camera can also be powered from an external mobile battery via its USB Type-C<sup>™</sup> and Multi/Micro USB connectors.

#### Selectable focus frame color

The focus frame color can be set to white or red. Red can improve visibility in situations where subject and focus frame color contrast is low and it is difficult to make out the focus area against the subject. The focus frame will appear in magenta if focus cannot be acquired when the shutter button is pressed.

#### **Specifications**

Camera	
Camera Type	Interchangeable lens digital camera
Lens Compatibility	Sony E-mount lenses
Lens Mount	E-mount
Recording	

		XAVC S 4K: 3840 x 2160 / 30p @ Approx.100Mbps 3840 x 2160 / 25p @ Approx.100Mbps 3840 x 2160 / 24p @ Approx.100Mbps 3840 x 2160 / 30p @ Approx.60Mbps 3840 x 2160 / 25p @ Approx.60Mbps 3840 x 2160 / 24p @ Approx.60Mbps	>
	Video Resolution	XAVC S HD: 1920 x 1080 / 120p @ Approx.100Mbps 1920 x 1080 / 100p @ Approx.100Mbps 1920 x 1080 / 120p @ Approx.60Mbps 1920 x 1080 / 100p @ Approx.60Mbps 1920 x 1080 / 60p @ Approx.50Mbps 1920 x 1080 / 50p @ Approx.50Mbps 1920 x 1080 / 30p @ Approx.50Mbps 1920 x 1080 / 25p @ Approx.50Mbps 1920 x 1080 / 25p @ Approx.50Mbps 1920 x 1080 / 24p @Approx.50Mbps 1920 x 1080 / 24p @ Approx.50Mbps	
		1920 x 1080 / 60p @Approx.25Mbps 1920 x 1080 / 50p @Approx.25Mbps 1920 x 1080 / 30p @Approx.16Mbps 1920 x 1080 / 25p @Approx.16Mbps AVCHD: FX - 1920 x 1080 / 60i @ Maximum bit-rate 24Mbps FX - 1920 x 1080 / 50i @ Maximum bit-rate 24Mbps FH - 1920 x 1080 / 60i @ Average bit-rate 17Mbps FH - 1920 x 1080 / 50i @ Average bit-rate 17Mbps FH - 1920 x 1080 / 50i @ Average bit-rate 17Mbps	
	Drive System		
	Continuous Shooting Speed	Continuous shooting: Hi+: max. 10 fps, Hi: max. 8 fps, Mid: max. 6fps, Lo: max. 3 fps	
	Drive Mode	Single Shooting Continuous shooting (Hi+/Hi/Mid/Lo selectable) Self-timer Self-timer (Cont.) Bracket: Single Bracket: Cont. White Balance bracket DRO bracket	
	Flash		
	Control	Pre-flash TIL	
	External flash	Sony α System Flash compatible with Multi Interface Shoe, attach the shoe adaptor for flash compatible with Auto-lock accessory shoe	
	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 Compensation	+/- 3.0 EV (switchable between 1/3 and 1/2 EV steps)	
	and the second s	Flash off Autoflash Fill-flash Slow Sync.	
C	Flash Modes	Rear Sync. Red-eye reduction (on/off selectable) Wireless* Hi-speed sync.* *With compatible external flash	
	Interface		
	HD Output	HDMI micro connector (Type-D) BRAVIA Sync(Control for HDMI) PhotoTV HD 4K movie output/4K still image PB	
	Headphone Jack	Yes(3.5 mm Stereo minijack)	
	Microphone Input	Yes(3.5 mm Stereo minijack)	

	NFC	Ver (NEC Forum Type 2 Tag competible One touch remate One touch thereit a)
	Remote Commander	Yes (NFC Forum Type 3 Tag compatible, One-touch remote, One-touch sharing)
	USB Port(s)	Yes (IR remote control/Bluetooth remote control) Yes (SuperSpeed USB(USB 3.2 Gen 1) compatible)
	Wi-Fi	Yes(Wi-Fi Compatible, IEEE 802.11a/b/g/n/ac(2.4GHz band/5GHz band))* (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 sold in some countries/regions support IEEE 802.11b/g/n (2.4GHz)wireless LAN only
- İ	Weights and Measurements	
j	Dimensions (Approx.)	5 1/8 x 3 7/8 x 3 1/8 inches, Approx. 5 1/8 x 3 7/8 x 2 3/4 inches( 128.9mm x 96.4mm x 77.5mm, Approx. 128.9mm x 96.4mm x 67.3mm) (From grip to monitor)
	Weight (Approx.)	With battery and memory card included: 1lb 7.5oz (665 g)
	Weight(Approx) (Main unit only)	Body only: 1lb 4.5oz (580 g)
1	Power	
Ī	Battery Type	One rechargeable battery pack NP-FZ100
	Number of Still Images	Approx. 530 shots (Viewfinder) / approx. 670 shots (LCD monitor) (CIPA standard) Movies actual recording: Approx. 90 min (Viewfinder) / Approx. 105 min (LCD monitor) (CIPA standard)
	Power Consumption (in View Finder Operation)	With Viewfinder; Still images: approx. 3.7W(with FE 28-70mm F3.5-5.6 OSS lens attached), Movies: approx. 6.2W(with FE 28-70mm F3.5-5.6 OSS lens attached) With LCD screen; Still images: approx. 2.9W(with FE 28-70mm F3.5-5.6 OSS lens attached), Movies: approx. 5.8W(with FE 28-70mm F3.5-5.6 OSS lens attached)
	Internal battery charge	Yes (Available with Multi/Micro USB Terminal or USB Type-C Terminal)
1	Clear Image Zoom	
1	Movies	Approx. 1.5x (4K), Approx. 2x (HD)
	Still images	Approx. 2x
1	Audio	
	Microphone	Built-in, stereo
	Speaker Type	Built-in, monaural
	Digital zoom	
	Digital zoom (Movie)	35mm full frame: approx 4x APS-C: approx 4x
	Digital zoom (Still images)	35mm full frame: L:approx 4x, M:approx 6.1x, S:approx 8x APS-C: L:approx 4x, M:approx 5.3x, S:approx 8x
	Smart zoom (Still images)	35mm full frame: M:approx 1.5x, S:approx 2x APS-C: M:approx 1.3x, S:approx 2x
	Drive No. of frame recordable* (approx.)	JPEG Extra fine L: 68 frames JPEG Fine L: 68frames RAW: 68 frames RAW&JPG: 68 frames RAW(Uncompressed): 30 frames RAW(Uncompressed)&JPG: 30 frames
	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/3 frames after 3 sec.
	Exposure control	
	AE Lock	Locked when shutter button is pressed halfway. Available with AE lock button. (On/Off/Auto)
	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.

Exposure compensation	+/- 5.0EV(1/3 EV, 1/2 EV steps selectable) (with exposure compensation dial : +/- 3EV (1/3 EV steps))
Exposure modes	AUTO(iAuto) 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: ISO 100-32000 (ISO numbers up from ISO 50 to ISO 102400 can be set as expanded ISO range.), AUTO (ISO 100-12800, selectable lower limit and upper limit) Movies: ISO 100-32000 equivalent, AUTO (ISO 100-12800, selectable lower limit and upper limit)
Metering sensitivity	EV-3 to EV20 (at ISO100 equivalent with F2.0 lens attached)
Metering sensor	Exmor R CMOS sensor
Metering type	1200-zone evaluative metering
Modes	Multi-segment, Center-weighted, Spot, Spot Standard/Large, Entire Screen Avg., Highlight
Face detection	
Face registeration	Yes
Max. number of detectable faces	8
Modes	Face Priority inAF(On/Off), Face Priority in Multi Metering(On/Off), Regist. Faces Priority(On/Off)
Focus system	
AF illuminator	Yes(with Built-in LED type)
AF illuminator range	Approx. 0.3m - approx. 3.0m (with FE 28-70mm F3.5-5.6 OSS attached)
AF micro adjustment	Yes, (Sold separately) with LA-EA2 or LA-EA4
Eye AF	(Still images) Human (Right/Left Eye Select) / Animal, (Movie) Human (Right/Left Eye Select)
Eye-start AF	Yes (only with LA-EA2 or LA-EA4 attached(Sold separately))
Focus area	Wide (567 points (phase-detection AF), 425 points(contrast-detection AF)) / Zone / Center / Flexible Spot (S/M/L) /Expanded Flexible Spot/ Tracking ( Wide / Zone / Center / Flexible Spot (S/M/L)/Expanded Flexible Spot)
Focus mode	AF-A(Automatic AF), AF-S (Single-shot AF), AF-C ( Continuous AF), DMF (Direct Manual Focus), Manual Focus
Focus point	35mm full frame: 567 points (phase-detection AF), APS-C mode with full frame lens: 325 points (phase-detection AF), with APS-C lens: 247 points (phase-detection AF) / 425 points (contrast-detection AF)
Focus sensor	Exmor R CMOS sensor
Other Features	Predictive control, Focus lock, AF Track Sens, Swt.V/H AF Area, AF Area Regist., Circ. of Focus Point
Sensitivity range	EV-3 to EV20 (ISO100 equivalent with F2.0 lens attached)
Туре	Fast Hybrid AF(phase-detection AF/contrast-detection AF)
Image sensor	
Anti-Dust function	Yes
Anti-Dust operation (auto)	Cleaning Mode
Anti-Dust system	Charge protection coating on optical filter and image sensor shift mechanism
Color filter	R, G, B primary color
Number of pixels (effective)	Approx. 61.0 megapixels
Number of pixels (total)	Approx. 62.5 megapixels
Туре	35mm full frame (35.7×23.8mm), Exmor R CMOS sensor

Bluetooth	Version 4.1 ( (2.4GHz band)
Multi / Micro USB Terminal	Yes
Multi Interface Shoe	Yes(with Digital Audio Interface)
Vertical Grip Connector	Yes
LCD screen	
Adjustable angle	Up by approx. 107 degrees, Down by approx. 41 degrees
Brightness control	Manual (5 steps between -2 and +2), Sunny Weather mode
Display Contents	Graphic Display Display All Info No Disp. Info Digital Level Gauge Histgram For viewfinder Monitor Off
Focus Check	Yes (35mm full frame: 5.9x, 11.9x APS-C: 3.9x, 7.8x)
Grid Line	Yes (Rule of 3rds Grid/Square Grid/Diag. + Square Grid/Off)
Number of dots (total)	1,440,000 dots
Peaking MF	Yes (Level setting: High/Mid/Low/Off, Color: Red/Yellow/Blue/White)
Quick Navi	Yes
Real-time image-adjustment display	On/Off
Touch panel	Yes
Туре	7.5cm (3.0-type) type TFT
WhiteMagic	Yes
Zebra	Yes (selectable level + range or lower limit as custom setting)
Lens compensation	
Lens compensation	Peripheral Shading, Chromatic Aberration, Distortion
Movie Function	
AF Drive Speed	Yes
AF Tracking Duration	Yes
Audio Level Display	Yes
Audio Rec Level	Yes
Auto Slow Shutter	Yes
Clean HDMI Info. HDMI Output	ON/OFF selectable         3840 x 2160(25p)         1920 x 1080(50p)         1920 x 1080(50i)         1920 x 1080(24p)         1920 x 1080(60p)         3840 x 2160(30p)         3840 x 2160(24p),         YCbCr 4:2:2 8bit / RGB 8bit
PAL/NTSC Selector	Yes
REC Control	Yes
TC/UB	(TC Preset/UB Preset/TC Format/TC Run/TC Make/UB Time Rec)
Other Features	
Area Setting	Yes
	Ver
Clock Function,Setting Help guide	Yes Yes

Playback	
	Single (with or without shooting information Y RGB histogram & highlight/shadow warning) 9/25-frame index view Enlarged display mode (L: 23.8x, M: 15.6x, S: 11.9x) Auto Review (10/5/2 sec,Off) Image orientation (Auto/Manual/Off selectable)
Modes	Slideshow Folder selection (Date/ Still/ AVCHD/XAVC S HD/XAVC S 4K) Forward/Rewind (movie) Delete Protect Rating Display as Group
Print	dr e Y eo e cela
Compatible standards	Exif Print, Print Image Matching III, DPOF setting
Recording system	
File system	FAT12, 16, 32, exFAT
Media	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:Slot for SD(UHS-I/II 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), Auto Switch Media (On/Off), Copy
Recording system (movie)	
Audio recording format	XAVC S:LPCM 2ch AVCHD: Dolby Digital (AC-3) 2ch, Dolby Digital Stereo Creator
Color space	xvYCC standard (x.v.Color when connected via HDMI cable) compatible with TRILUMINOS Color
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 (-5 to +5 steps))
Picture Effect	Posterization (Color), Posterization (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
Recording format	XAVC S AVCHD format Ver. 2.0 compliant
Video compression	XAVC S:MPEG-4 AVC/H.264, AVCHD: MPEG-4 AVC/H.264
Recording system (still image) Color space	sRGB standard (with sYCC gamut) and Adobe RGB standard compatible with TRILUMINOS Color
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 (-5 to +5 steps))
Delete	Yes
Dynamic Range functions	Off, Dynamic Range Optimizer (Auto/Level (1-5))
Image quality modes	RAW RAW & JPEG (Extra fine, Fine, Standard) JPEG (Extra fine, Fine, Standard)
Image size (pixels) (16:9)	35mm full frame L: 9504 x 5344 (51M), M: 6240 x 3512 (22M), S: 4752 x 2672 (13M) APS-C L: 6240 x 3512 (22M), M: 4752 x 2672 (13M), S: 3120 x 1752 (5.5M)
Image size (pixels) (3:2)	35mm full frame L: 9504 x 6336 (60M), M: 6240 x 4160 (26M), S: 4752 x 3168 (15M)

Picture Effect	7 types: Posterization (Color), Posterization (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
Recording format	JPEG (DCF Ver. 2.0, Exif Ver.2.31, MPF Baseline compliant), RAW (Sony ARW 2.3 format)
Uncompressed RAW	Yes
Slow & Quick Motion (S&Q)	
Image frame rate	NTSC mode: 1fps,2fps,4fps,8fps,15fps,30fps,60fps,120fps PAL mode: 1fps,2fps,3fps,6fps,12fps,25fps,50fps,100fps
Image size (frame rate)	NTSC mode: 1920x1080 (60p, 30p, 24p) PAL mode: 1920x1080 (50p, 25p)
Shutter	
Electronic Front Curtain Shutter	Yes(ON/OFF)
Flash sync. speed	1/250 sec.
Shutter speed	Still images:1/8000 to 30 sec, Bulb, 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)
Туре	Electronically-controlled, vertical-traverse, focal-plane type
Viewfinder	
Diopter Adjustment	-4.0 to +3.0m-1
Magnification	approx. 0.78 x (with 50mm lens at infinity, -1m <sup>-1</sup> )
Туре	0.5 type (1.3 cm) electronic viewfinder (color)
Brightness control	Auto/Manual (5 steps between -2 and +2)
Color temperature control	Manual (5 steps)
Display Contents	Graphic Display Display All Info. No Disp. Info. Digital Level Gauge Histogram
Eye point	Approx. 23mm from the eyepiece lens, 18.5mm from the eyepiece frame at $-1m^{-1}$ (CIPA standard)
Finder Frame Rate Selection	NTSC mode: STD 60fps / HI 120fps PAL mode: STD 50fps / HI 100fps
Number of dots	5 760 000 dots
White balance	
AWB micro adjustment	Yes(G7 to M7,57-step)(A7 to B7,29-step)
Bracketing	3 frames, H/L selectable
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-step), A7 to B7(29-step)) / Custom
Priority Set in AWB	Yes
Wi-Fi	
Send to Computer	Yes
View on Smartphone	Yes
View on TV	Yes

Power cord Rechargeable Battery NP-FZ100 Cable Protector Battery Charger BC-QZ1 Shoulder strap Body cap Accessory shoe cap Eyepiece cup USB Type-C<sup>™</sup> cable

1. As of July 2019, based on Sony survey of digital cameras with a full-frame image sensor

2. Approximately, effective

Supplied Accessories

3. Still images. Sony test conditions

4. Up to 10 fps in "Hi+" continuous mode with mechanical shutter. UHS-II compatible SDXC memory card. Sony test conditions. Up 10 68. extra Fine/Fine JPEG or

compressed RAW images can be captured at 10 fps in continuous "Hi+" mode, and up to 8 fps in continuous "Hi" mode. Maximum fps will depend on camera settings.

6. Accurate focus may not be achieved with certain subjects in certain situations. Stills only. "Animal" mode must be selected via the Face/Eye AF Settings menu before shooting.

7. Image Edge desktop application Ver. 2.0 or later is required for compositing, Pixel Shift Multi Shot mage compositing may not be successful if camera or subject movement

8. A Class 10 or higher SDHC/SDXC card is required for XAVC S format movie recording. UHS speed class 3 or higher is required for 100 Mbp

9. Super 35mm 4K recording results in a slightly narrower angle of view.

10. Standard ISO 100 up to ISO 32000 expandable to ISO 50 to ISO 102400 for still images

11. Limited to 12 bits during compressed RAW continuous shooting, BULB exposure, or when Long Exposure NR is ON

12. Some distortion may occur when shooting fast-moving subjects or if the camera is moved sideways rapidly while using the electronic

13. CIPA standards. Pitch/yaw shake only. Planar T\* FE 50mm F1.4 ZA lens. Long exposure NR off

14. Not guaranteed to be 100% dust and moisture proof.

15. Models sold in some countries/regions support IEEE 802.11b/g/n (2.4GHz) wireless LAN only. 5GHz communication may be restricted in some countries and regions. B. Digital audio interface recording requires Sony's ECM-B1M microphone or XLR-K3M XLR microphone adaptor
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