

SONY

α  
ALPHA

Interchangeable-lens digital camera

α1





# α 1

## The One

Once in a while an innovation comes along that is so far ahead of the curve that it fundamentally changes the way things are done. The α1 falls squarely into that category. It is an extraordinary full-frame E-mount camera made specifically to give creators the freedom they need to explore the world and their imaginations without restraint. Sony's ongoing quest to challenge the limits of conventional imaging tools with groundbreaking technology has opened the door to a new era that begins with the α1. With an unprecedented blend of resolution, speed, quality and control, it gives creative photographers and videographers the kind of creative freedom they could previously only dream about.

If you're ready to unleash your true talent, you're ready for The One.

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BIONZ XR



\* No.1 image sensor manufacturer for digital cameras and video recorders. Based on Sony research - April 2019 to March 2020 (Over 50% market share).

\*\* No.1 electronic viewfinder (EVF) device manufacturer for digital still cameras which employ EVF. Based on Sony research - April 2019 to March 2020 (Over 50% market share).

35mm Full Frame <b>50.1</b> Mega pixels	Blackout-free <b>30</b> fps	<b>120</b> time/sec. AF/AE calculation	ISO <sup>*3</sup> <b>100-32000</b> Expanded 50-102400	Phase Detection <b>759</b> AF Points	Real-time Eye AF Human/ Animal/Bird	Real-time Tracking	<b>8K 30p</b> 4:2:0 10bit	<b>4K 120p</b> 4:2:2 10bit	S-Cinetone	S-Log3	Optical Steady shot (Active Mode)	<b>0.64 / 9.44</b> Type Million dots <b>EVF</b>	Refresh rate <sup>*7</sup> <b>240</b> fps <b>EVF</b>	Dual slots CFexpress Type A SDXC UHS-II	SuperSpeed USB 10Gbps	Wi-Fi 802.11ac 2x2 MIMO	Wired LAN 1000 BASE-T
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\*1 "Hi+" continuous shooting mode. In focus modes other than AF-C, effective at 1/125 sec. or higher shutter speed. In AF-C mode, effective at 1/250 sec. or higher shutter speed, and the maximum continuous frame rate will depend on the shooting mode and lens used. 20 fps max. when shooting uncompressed RAW or lossless compressed RAW. A software update may be required for some lenses. Visit Sony's support web page for lens compatibility information.

\*2 At shutter speeds of 1/125 sec. or higher. The number of AF calculations will depend on the lens used.

\*3 ISO50-102400 for stills. ISO100-32000 for movies.

\*4 [APS-C S35 Shooting] is fixed [Off] when shooting 8K movies.

\*5 With 10% image crop. [APS-C S35 Shooting] is fixed [Off] when shooting 4K 120p. Full-frame lenses recommended.

\*6 For movies. Slight image crop in Active Mode. "Standard" setting recommended for focal lengths of 200mm or longer. Active Mode is not available for 8K recording.

\*7 Field of view is fixed at 33° and resolution is UXGA when selecting frame rate at 240 fps.

\*8 5 GHz communication may be restricted in some countries and regions.

# Extraordinary Resolution, Speed, & Expression

The creative mind works at immeasurable speed. A perfect tool must be able to keep up. The  $\alpha 1$  offers an unprecedented blend of speed and resolution that allows creators to transform ideas into reality without restraint.



FE 70-200mm F2.8 GM OSS (SEL70200GM), 1/2000 sec., F4.5, ISO 400

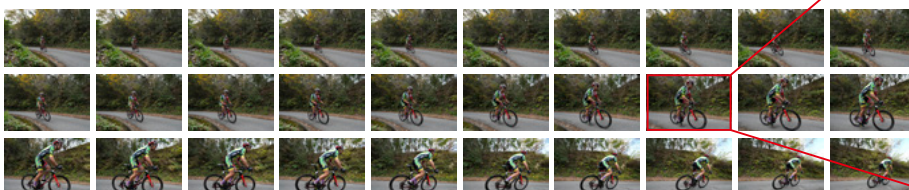
## 50.1 megapixels<sup>\*1</sup> at 30 fps<sup>\*2</sup> with brilliant AF and tracking

Unprecedented readout speed from a state-of-the-art 50.1-megapixel<sup>\*1</sup> image sensor makes it possible to shoot up to 30 full-frame images per second with precise autofocus and auto-exposure tracking using the advanced electronic shutter that is a key feature of the  $\alpha 1$ . 30 fps is 150% faster than even the incredible  $\alpha 9$  II, making it easier than ever to capture moments that can be lost between the frames of slower systems. A large buffer memory and increased overall system speed allow up to approximately 165 JPEG images or 155 compressed RAW images to be captured in one continuous 30 fps burst. More than 1000 still images can be captured continuously at 15 fps<sup>\*3</sup>. The  $\alpha 1$  is simply unbeatable when timing is critical for sports and other moving subjects.

\*1 Approximate, effective.

\*2 "Hi+" continuous shooting mode. Effective at 1/125 sec. or higher shutter speed in focus modes other than AF-C; 1/250 sec. or higher in AF-C mode. Maximum continuous frame rate will depend on the shooting mode and lens used. 20 fps max. when shooting uncompressed RAW or lossless compressed RAW. A software update may be required for some lenses. Visit Sony's support web page for lens compatibility information.

\*3 Fine JPEG images recorded to one Sony CFexpress Type A memory card.

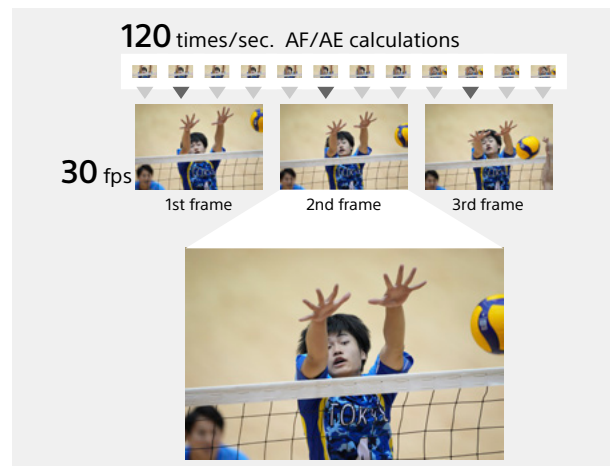


## Up to 120 AF/AE calculations per second<sup>\*1</sup>

The high readout speed of the  $\alpha 1$  image sensor complements the camera's efficient mirrorless E-mount configuration to enable up to 120 autofocus and auto-exposure calculations per second<sup>\*1</sup> at the focal plane, regardless of release timing, and even while shooting continuous bursts at up to 30 fps<sup>\*2</sup>. That's twice the number of calculations the speedy  $\alpha 9$  II is capable of making. Complex, erratic subject motion is tracked with higher precision than ever before, and exposure can be automatically adjusted even through sudden brightness changes. Auto-exposure response latency is as low as 0.033 second<sup>\*2</sup> for consistent accuracy.

<sup>\*1</sup> At shutter speeds of 1/125 sec. or higher. Number of AF calculations may vary according to the lens used.

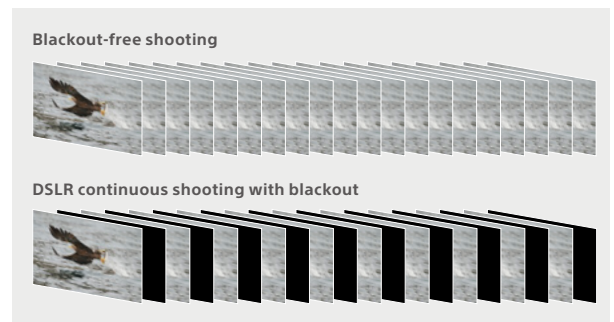
<sup>\*2</sup> "Hi+" continuous shooting mode. Effective at 1/125 sec. or higher shutter speed in focus modes other than AF-C; 1/250 sec. or higher in AF-C mode. Maximum continuous frame rate will depend on the shooting mode and lens used. 20 fps max. when shooting uncompressed RAW or lossless compressed RAW. A software update may be required for some lenses. Visit Sony's support web page for lens compatibility information.



## Blackout-free shooting<sup>\*1</sup>

The  $\alpha 1$  offers a viewfinder experience that is closer to viewing with the naked eye. In conventional DSLR systems, view-finder blackout occurs when the mirror flips up and blocks the viewfinder while exposing each frame. The  $\alpha 1$  viewfinder does not blackout while shooting, so the user always has an uninterrupted view, even during continuous shooting. This is a game-changer for sports where fast action is the norm, and even for portraits where fleeting expressions can make a difference. High-speed processing via the new BIONZ XR™ image processing engine and EVF make it possible to continuously refresh the live view display on the EVF for smooth viewing even while shooting continuously, and camera settings that affect the image are previewed in the EVF live-view display.

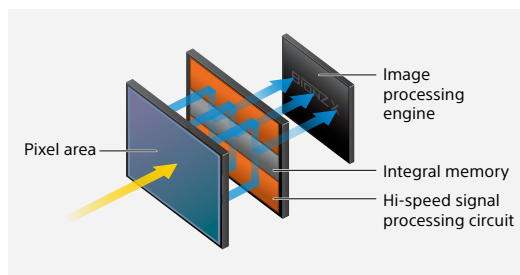
<sup>\*1</sup> Using electronic shutter. Display updating will be slower at low shutter speeds.



## Newly developed 50.1-megapixel<sup>\*1</sup> Exmor RS™ image sensor

A newly developed full-frame Exmor RS image sensor delivers an overwhelming combination of resolution and speed with 50.1 megapixels<sup>\*1</sup> in a stacked CMOS architecture that includes integral memory. A new A/D conversion system provides even more speed and quality improvements. Despite the high pixel count, extraordinary readout and processing speed allow the  $\alpha 1$  to shoot continuous bursts at up to 30 frames per second with fast, precise autofocus. It also offers top-quality 8K 30p movies with full-frame 8.6K oversampling. Working with the powerful BIONZ XR image processing engine, the advanced sensor offers unprecedented performance for a new era of image making.

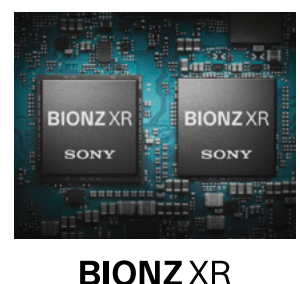
<sup>\*1</sup> Approximate, effective.



## Prodigious BIONZ XR™ processing power

The  $\alpha 1$  features a revised system architecture with greatly enhanced processing performance from image capture through all signal processing stages. In addition to achieving approximately eight times faster processing than previous types, the new BIONZ XR image processing engine integrates autofocus, image recognition, image quality adjustments, development, and other real-time processing tasks in two fast, powerful chips for minimal latency. Stress-free camera response is maintained regardless of real-time processing load. Thanks to enhanced overall system speed and increased memory capacity, the  $\alpha 1$  allows continuous shooting of approximately 165 still images at 30 fps, or more than 1000 still images at 15 fps<sup>\*1</sup>.

<sup>\*1</sup> Fine JPEG images recorded to one Sony CFexpress Type A memory card.



### Silent, vibration-free electronic shutter

The  $\alpha 1$  represents a brilliant blend of mirrorless efficiency and state-of-the-art electronic shutter technology. The electronic shutter operates silently without mechanical noise that can be disruptive when shooting sports or events in a quiet environment. The fact that the electronic shutter is vibration-free also minimizes the likelihood of vibration-induced blur, further contributing to superior resolution and image quality. And since it has no moving components, the electronic shutter is much more durable than any mechanical counterpart. Taking the convenience of silent shooting to the next level, the  $\alpha 1$  includes a new menu that makes it possible to set all parameters related to silent operation in one quick step for faster operation when shooting concerts, theater, or other situations where absolute silence is required.

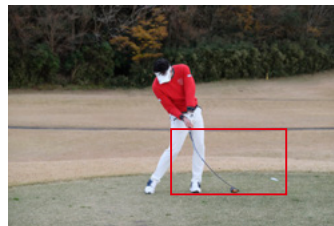


FE 600mm F4 GM OSS (SEL600F40GM), 1/1600 sec., F4, ISO 3200 with 1.4x Teleconverter Lens (SEL14TC)

### Anti-Distortion Shutter

The  $\alpha 1$  reduces rolling shutter effect by approximately 1.5x compared to the  $\alpha 9$  II when shooting stills<sup>\*1</sup> with the electronic shutter. That is an impressive feat considering its high-resolution 50.1 effective megapixel image sensor, largely attributable to fast sensor readout, a large buffer memory, and the powerful BIONZ XR processing engine. The  $\alpha 1$  also goes beyond mechanical device limitations with a maximum shutter speed of 1/32000 sec., providing new exposure flexibility and making ND filters unnecessary in a wider range of lighting and shooting environments.

\*1 Slight distortion may be noticeable in some shooting situations.



Conventional electronic shutter

Anti-Distortion Shutter

### World first<sup>\*1</sup>: Anti-flicker shooting with mechanical and electronic shutters<sup>\*2</sup>

Extremely fast sensor readout has made it possible to provide Anti-flicker shooting with electronic shutter for the first time. This makes the full range of electronic-shutter advantages available without flicker issues when shooting under fluorescent or other flicker-prone artificial light: blackout-free shooting, up to 120 AF/AE tracking calculations per second, up to 30 fps continuous shooting, silent shooting, and more. Anti-flicker shooting is also available with the mechanical shutter at up to 10 fps with full AF/AE tracking.



Banding caused by flicker (Simulated)



$\alpha 1$

\*1 As of the January 2021 product announcement, Sony survey of full-frame interchangeable-lens digital still cameras.

\*2 Only 100 Hz and 120 Hz flicker is detected. Continuous shooting speed may decrease. Flicker-free shooting is not available during BULB exposure, or movie recording.

### High frequency flicker-free shooting

In situations where it is necessary to shoot silently using the electronic shutter at stage performances under LED lighting, or for high-speed continuous shooting at sports venues that use LED lighting and signage, the  $\alpha 1$  high frequency flicker function can significantly reduce problems caused by high-frequency flicker from such light sources by precisely matching the shutter speed to the flicker frequency.

# More Speed and Flexibility for Flash Photography

Flash is an important part of the photographer's creative toolkit. The  $\alpha$ 1 offers significant improvements, including flash sync with electronic shutter, that provide a dramatic evolution in expressive capability.



FE 100mm F2.8 STF GM OSS (SEL100F28GM), 1/200 sec., F5.6, ISO 100

## Electronic shutter flash sync

For the first time in an  $\alpha$  camera, electronic shutter flash sync\*<sup>1</sup> up to 1/200 sec. is possible thanks to high readout speed from the stacked CMOS sensor. All electronic shutter advantages including blackout-free shooting, up to 120 AF/AE calculations per second, continuous shooting with Real-time Eye AF, silent shooting and more are available for broadly expanded shooting versatility. The  $\alpha$ 1 also includes a new flash preview setting that turns a viewfinder and monitor preview of the flash effect ON or OFF.

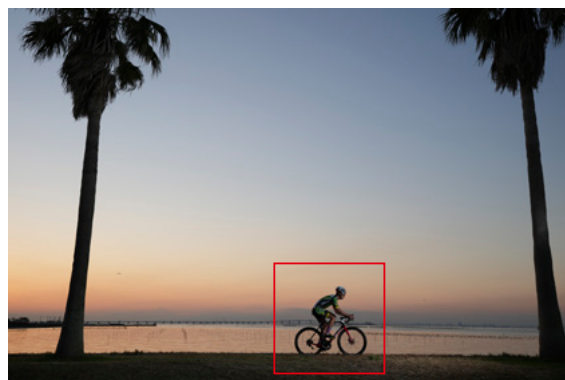
\*1 Synchronization via the sync terminal is not available for electronic shutter.

## World's fastest\*<sup>1</sup>: Mechanical shutter flash sync to 1/400 sec.

$\alpha$ 1 shutter refinements extend to the mechanical shutter too, opening the door to new creative possibilities by allowing flash synchronization at shutter speeds up to 1/400 sec. The spring-powered shutter curtains in most previous models\*<sup>2</sup> could only provide flash sync at shutter speeds up to 1/250 sec. In the  $\alpha$ 1, spring power is augmented by an electromagnetic actuator in a new dual driven shutter system. Another refinement that contributes to this increase in sync speed is a carbon fiber shutter curtain that is both durable and lightweight. The  $\alpha$ 1 allows mechanical shutter flash sync up to 1/400 sec. in a full-frame interchangeable-lens digital camera for the first time anywhere\*<sup>1</sup>. In APS-C mode flash sync is possible at shutter speeds up to 1/500 sec.

\*1 As of the January 2021 product announcement, Sony survey of full-frame interchangeable-lens digital still cameras.

\*2 Except for the  $\alpha$ 7C which also includes the electromagnetic actuator.

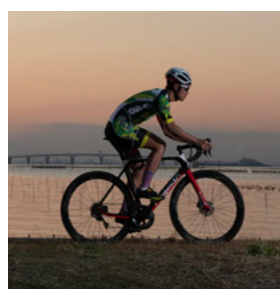


FE 16-35mm F2.8 GM (SEL1635GM), 1/400 sec., F5.6, ISO 400 with HVL-F60RM (off camera) / FA-WRC1M

## External flash control & face detection support

A compatible flash unit or radio wireless flash commander\*<sup>1</sup> connected to the camera can be controlled directly from the camera interface. A new function also links control of compatible Sony flash units to the camera's face detection feature, automatically adjusting white balance for natural human face tone based on the balance between the flash and ambient light.

\*1 See Accessories on page 24 for compatible flash units.



## Still Image Quality Redefined

The challenge of representing reality in a two-dimensional image is part of the appeal of still photography. The  $\alpha$ 1 brings high resolution, extraordinary processing power, low noise, and wide dynamic range together in images that live and breathe with amazing depth and detail.



FE 200-600mm F5.6-6.3 G OSS (SEL200600G), 1/1250 sec., F6.3, ISO 1000

### High resolution and sensitivity with low noise and wide dynamic range

The  $\alpha$ 1 employs highly efficient noise reduction processing to deliver maximum subjective resolution from its 50.1 effective megapixel image sensor. With that level of detail, you still have 21 effective megapixels of resolution when shooting in the APS-C mode or when cropping to APS-C size after shooting, significantly expanding the camera's imaging versatility. Full-frame "M" size JPEG or HEIF images also retain approximately 21 megapixels, oversampled from the 50.1 megapixel sensor output.

### Wide sensitivity range

The  $\alpha$ 1 sensor features a number of original technologies such as back-illumination, gapless on-chip lenses, AR-coated seal glass and others that work with the new BIONZ XR image processing engine to deliver high resolution and low noise throughout a wide ISO100–32000 sensitivity range that is expandable to ISO50–102400 for still images.



ISO 3200

### 15-stop dynamic range

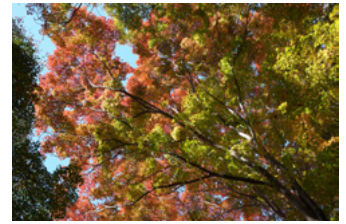
Wide dynamic range is essential for realistic reproduction of depth and detail. The  $\alpha$ 1 delivers approximately 15 stops\*<sup>1</sup> of dynamic range at low sensitivities, effortlessly reproducing smooth, natural gradations as well as details from shadows to highlights.

\*1 Sony tests. Still images.



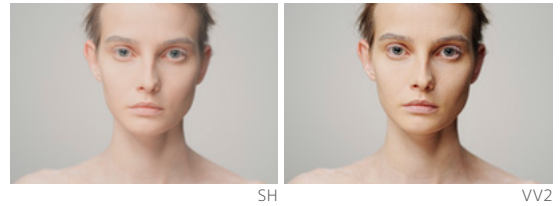
### Consistently accurate color reproduction

The blazing speed and prodigious capacity of the BIONZ XR processing engine allow it to apply highly detailed processing to individual image elements, achieving better color reproduction accuracy than ever before. Deep reds and fresh greens are reproduced in all their natural beauty, while skin textures and tones are smooth, realistic, and healthy looking under a wide range of light. Another important addition is a “Visible Light and IR Sensor” that helps to achieve more precise white balance under artificial lighting, including fluorescent and LED lights that sometimes confuse conventional auto white balance systems.



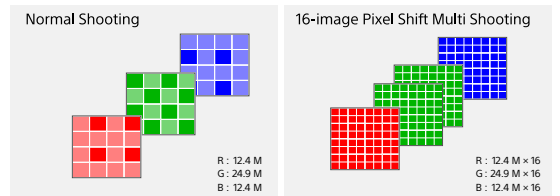
### Creative Look offers a spectrum of in-camera moods

A range of Creative Look selections make it easy to create interesting moods for stills and movies right in the camera. Ten Creative Look selections are provided as presets that can be used as they are or customized by the user. The presets provide a wide range of variations with different combinations of color, color depth, brightness, contrast, sharpness, and more. Eight customizable parameters can be adjusted while viewing the resulting image via the monitor or viewfinder, and customized settings can be stored for later recall and use.



### Pixel Shift Multi Shooting for breathtaking detail

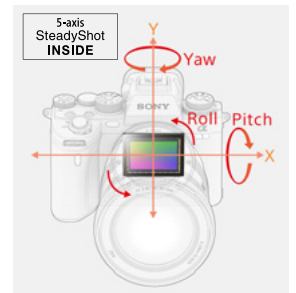
This super-resolution feature takes advantage of advanced in-body image stabilization system control, capturing multiple pixel-shifted images that are later composited by the Imaging Edge (version 3.1 or later) software application to achieve overwhelming resolution in a single image. The α1 is capable of generating 796.26 million pixels of data in 16 images that can be composited to create 199-million-pixel (17,280 x 11,520) images<sup>\*1</sup>. What’s more, the α1 allows Pixel Shift Multi Shooting with flash synch at up to 1/200 sec. for blur-free images in bright interiors or other relatively well-lit situations.



<sup>\*1</sup> Four 49.7-megapixel images provide approx. 199 million pixels, and sixteen 49.7-megapixel images provide approx. 796 million pixels. Image size after compositing is approx. 49.7 million (8640 x 5760) pixels for 4-image shots, and approx. 199 million pixels (17280 x 11520) for 16-image shots.

### 5-axis optical in-body image stabilization for a 5.5-step<sup>\*1</sup> shutter speed advantage

A high-precision stabilization unit and gyro sensors, plus optimized image stabilization algorithms, achieve up to a 5.5-step shutter speed advantage that can help maximize image quality from the 50.1-megapixel α1 image sensor. When shooting stills, live view shows the stabilized image while the shutter button is half-pressed, even when the Auto Magnifier in MF or Focus Magnifier functions are in use, making it easier to frame and focus when using a telephoto or macro lens. Effective stabilization can be achieved with a wide range of lenses, including E-mount lenses that do not include stabilization of their own, and compatible A-mount lenses attached via a mount adaptor. <sup>\*1</sup> CIPA standards. Pitch/yaw shake only. Planar T\* FE 50mm F1.4 ZA lens. Long exposure NR off.



### Efficient 10-bit HEIF<sup>\*1</sup> delivers natural gradations

The α1 includes the newer HEIF (High Efficiency Image File) format for smooth 10-bit gradations. 4:2:2 or 4:2:0 color sampling can be selected according to quality needs. This format achieves image quality that is on a par with the best JPEGs with approximately twice the compression, greatly reducing file size and storage space requirements. Reduced file size is also an advantage for network delivery, providing faster transfers for professional workflows.

<sup>\*1</sup> The “HEIF Converter” desktop application can be used to convert HEIF files to JPEG or TIFF format.

### Improved custom white balance control

Rather than being fixed at the center of the image, the white balance measurement area can be moved to any desired point by using the camera’s control wheel. This makes it possible to achieve more accurate white balance in a wider range of environments, with more flexible framing and composition. The white balance measurement area can also be positioned via a computer during tethered shooting.

### Selectable aspect ratios

Selectable 3:2, 4:3, 16:9, and 1:1 aspect ratios not only give you a choice of creative formats, but also let you shoot in the delivery aspect ratio for a more efficient workflow.

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

16-bit image processing and 14-bit RAW image output provide maximum processing flexibility so you can capture smooth, natural gradations that remain intact during editing.

# Revolutionary Focus Speed and Precision

High resolution is meaningless without precise focus, so the  $\alpha$ 1 has been designed to deliver unprecedented levels of focus accuracy, speed, and versatility. The camera takes care of the details so you can concentrate on framing breathtaking images.

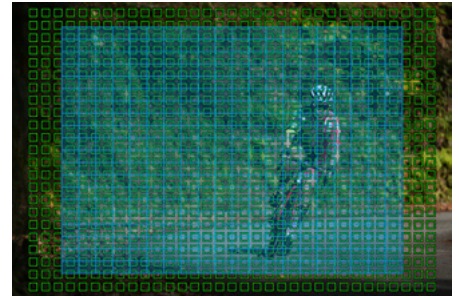
## 4D Focus: Wide, fast, precise autofocus and tracking



759\*1 phase detection points in a high-density focal plane phase-detection AF system cover approximately 92% of the image area. The large amount of data read from the high-resolution image sensor is processed and precisely analyzed in real time via the powerful new BIONZ XR processing engine. The speed and tracking performance of phase-detection AF is combined with the precision of 425-point contrast AF in a Fast Hybrid AF System, reliably locking onto and tracking even fast-moving subjects. The high resolution of the  $\alpha$ 1 image sensor makes it possible to seamlessly switch between full-frame and APS-C modes with no change in the number of AF points or performance when using a full-frame lens. Up to 120 AF tracking calculations per second\*2 and optimized AF algorithms provide notably enhanced AF precision and tracking performance.

\*1 759 AF measurement points for stills. The number of points varies according to the shooting mode.

\*2 At shutter speeds of 1/125 sec. or higher. Number of AF calculations may vary according to the lens used.

 4D FOCUS



-  Phase-detection AF coverage (759 points)
-  Contrast-detection AF coverage (425 points)

## More tenacious Real-time Tracking

The  $\alpha$ 1 includes AI-based Real-time Tracking that uses color, pattern (brightness), and subject distance (depth) data to process spatial information in real time for extremely high tracking precision. With the advanced processing capabilities of the new BIONZ XR engine plus the ability to make up to 120 AF/AE calculations per second, the  $\alpha$ 1 achieves even more tenacious tracking than the  $\alpha$ 9 II, easily tracking players in challenging sports situations such as indoor arenas where spectator seating is relatively close. A range of new functions further support the utility and versatility of Real-time Tracking: instantly switch the focus area to tracking, temporarily pause tracking, initiate AF and tracking on a subject touched on the monitor, turn the tracking focus frame on or off, and shift the area frame while tracking.



## Real-time Eye AF

Real-time Eye AF employs high-level subject recognition technology to detect and process image data in real time via the powerful new BIONZ XR engine. In the  $\alpha$ 1 it reliably recognizes and tracks bird eyes as well as human and animal eyes. For human subjects, enhanced AI recognition and Fast Hybrid AF algorithms improve tracking reliability by as much as 30% compared to the  $\alpha$ 9 II, even when the face is looking up, down, or sideways at more extreme angles. And with a dedicated Eye AF algorithm plus the ability to make up to 120 AF/AE calculations per second\*1, tracking performance with backlit subjects has been significantly improved. You can even choose whether to focus on the subject's right or left eye. The  $\alpha$ 1 also supports Eye AF (Human) for movies.

\*1 Effective for electronic shutter. Display updating may be slower at low shutter speeds.

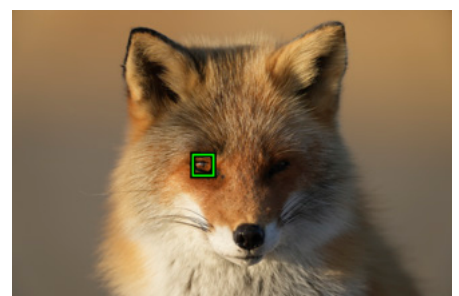


## Real-time Eye AF animal mode tracks animal eyes\*1

If the camera's subject detection type is set to "Animal," animal eyes will be automatically detected and tracked. This capability will vastly increase the photographer's success rate when shooting animals in the wild or beloved pets at home in situations where accurate focus positioning has previously been a challenge\*2. The  $\alpha$ 1 significantly improves animal eye tracking performance over the  $\alpha$ 7S III and  $\alpha$ 9 II. Cat and dog eyes are reliably tracked even when the animal is facing sideways, or its face is completely upside-down.

\*1 Stills only.

\*2 Accurate focus may not be achieved with certain subjects in certain situations.





FE 600mm F4 GM OSS (SEL600F40GM), 1/2500 sec., F5.6, ISO 1250, with 1.4X Teleconverter Lens

### New Real-time Eye AF bird mode<sup>\*1</sup>

The α1 also includes newly developed Real-time Eye AF for birds. Select the bird to be tracked, and the camera will automatically detect and reliably focus on that bird's eye whether it is still or in flight. Accurate tracking is maintained even if a sitting bird suddenly takes flight, or the framing suddenly changes<sup>\*2</sup>.

<sup>\*1</sup> Stills only.

<sup>\*2</sup> Accurate focus may not be achieved with certain subjects in certain situations.

### AF tracking during continuous shooting at F22<sup>\*1\*2</sup>

F16 was previously the smallest aperture that could be used for continuous shooting with AF tracking. The α1 can shoot continuously with full AF tracking at apertures as small as F22<sup>\*1\*2</sup>. There is also a Focus Priority function that makes reliable AF tracking available while shooting continuously at apertures even smaller than F22. This improvement provides further accuracy for panning shots that require a slow shutter speed.

<sup>\*1</sup> The aperture size can be smaller than F22 when the "Aperture Drive in AF" parameter is set to "Focus Priority". Compatible lenses: SEL1224GM, SEL135F18GM, SEL1655G, SEL200600G, SEL20F18G, SEL24F14GM, SEL2860, SEL35F18F, SEL400F-28GM, SEL600F40GM, SEL70350G

<sup>\*2</sup> Lens software must be updated to the latest version.

### Full AF support for LA-EA5 A-mount adaptor

The optional LA-EA5 Mount Adaptor provides full focal plane phase-detection AF support for A-mount lenses<sup>\*1</sup>, including models that do not have built-in focus motors. In addition to wide-area focal plane phase-detection AF when shooting stills, the LA-EA5 supports Real-time Eye AF (Human, Animal, and Bird), Real-time Tracking, and other AF features that use subject recognition. It also lets you shoot continuously at up to 10 fps with AF/AE tracking.

<sup>\*1</sup> Some lenses not supported. Continuous shooting speed may vary depending on the lens used. Autofocus not available when shooting movies.

### Accurate AF in low light

Advanced AF algorithms achieve high AF precision down to light levels as low as EV-4 in AF-S mode (ISO 100 equivalent, F2.0 lens). The α1 also includes a Focus Priority mode that provides more reliable AF in low light when using smaller apertures.

### AF Frame Shift Amount

It is possible to set the distance that the Spot or Expand Spot AF frame is moved by the dials and/or wheel when shooting stills, to ideally match different types of subjects. The AF frame shift amount can be set to "Standard" or "Large" via a menu. Separate settings can be made for the front/rear dials and control wheel, so you can quickly select the controller assigned to the appropriate settings for the subject being shot.

### Other AF and continuous shooting features

- Focus frame display during playback
- Temporary custom setting recall while an assigned custom button is held
- Focus magnification during autofocus

# A New Tier of Movie Quality and Control

If movies are part of your creative output, the α1 has you covered, right up to 8K. The α1 would be an exceptional camera even if it only shot stills, but it also offers movie capabilities that make it an astonishingly well-rounded creator's tool.



## Stunning realism with 8K 30p movies

For the first time in the α series, the α1 offers internal and external 8K 30p<sup>\*1</sup> XAVC HS™ recording with 8.6K oversampling for extraordinary resolution and realism. Combined with superior α1 AF, gradation, and color reproduction performance, 8K resolution can bring the world to life. Shooting in 8K is also a great way to achieve more 4K editing flexibility. Low-bit-rate proxy files with HD resolution that can be used for previewing or pre-editing can be recorded simultaneously with 8K. The smaller proxy files can reduce load on computing resources for a more efficient workflow.



<sup>\*1</sup> 8K files are recorded internally in 4:2:0 10-bit format. The APS-C S35 mode is disabled when shooting 8K movies. Full-frame lenses recommended.

## 4K movies at up to 120 frames per second

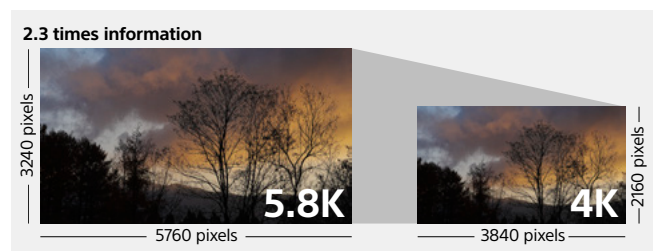
In-camera 4K recording at up to 120 frames per second<sup>\*1</sup> makes it possible to create smooth 5x (max.) slow-motion imagery<sup>\*2</sup> at high resolution during post-production for new expressive capability. In addition to supporting 10-bit 4:2:2 recording, this feature can be used with efficient Long GOP inter-frame compression or high-quality Intra (All-I) intra-frame compression. When recording S&Q footage that can be directly played back in slow or quick motion<sup>\*3</sup>, the XAVC S-I™ format at 60p allows a maximum bit rate of 600 Mbps (4:2:2 10-bit, H.264, All-I)<sup>\*4</sup> for outstanding image quality. Up to 10x slow motion with 1.5x oversampled Full HD resolution is possible at 240 fps<sup>\*5</sup> (at 24p), providing fresh perspectives on dynamic sports and other types of action.



<sup>\*1</sup> With 10% image crop. The "APS-C S35 Shooting" mode is fixed Off when shooting 4K 120p. Full-frame lenses recommended.  
<sup>\*2</sup> Post-production editing and S&Q mode recording required.  
<sup>\*3</sup> Audio recording not available in the S&Q mode.  
<sup>\*4</sup> Data must be recorded to a CFexpress Type A memory card when recording XAVC S-I at 120 (100) fps or higher.  
<sup>\*5</sup> With 20% image crop.

## 5.8K oversampled full pixel readout for 4K movies in Super 35mm format

4K movies can be recorded in full-frame or Super 35 format. Full pixel readout without pixel binning in the Super 35 mode makes it possible to deliver high-resolution, high-detail 4K with minimal moiré and jaggies. Furthermore, the advanced α1 image processing system delivers more accurate skin tones as well as smoother highlight gradations. Bit rates up to 600 Mbps can be used for 4K XAVC S-I<sup>1</sup> recording.



<sup>\*1</sup> A Class 10 or higher SDHC/SDXC card required. UHS speed class 3 or higher is required for 100 Mbps recording.

## Improved basic image quality

In addition to boosting speed, the BIONZ XR image processing engine also improves basic video image quality. The colors and textures of foliage, human skin, and more are ideally and consistently reproduced, regardless of the lighting used. Gradation rendering has also been refined for better looking skin textures and highlight roll-off in portraits. Noise is effectively subdued at high sensitivities, so images are clear with excellent detail and resolution.

## Advanced 4K movie modes

The α1 can record 10-bit 4:2:2 video<sup>\*1</sup> internally when using Long GOP or All Intra compression, making it possible to grade for fuller, more natural gradations while generally providing greater editing freedom. Intra-frame (All-I)<sup>\*2</sup> recording allows internal 4K recording at bitrates up to 600 Mbps<sup>\*3</sup>.

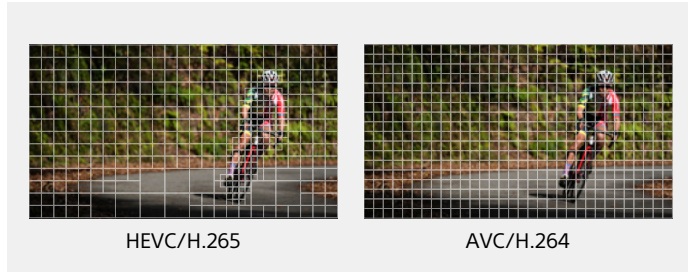


<sup>\*1</sup> 8K movies are recorded in 10-bit 4:2:0 format.  
<sup>\*2</sup> When XAVC S-I 4K or HD is selected via the file format menu.  
<sup>\*3</sup> When recording S&Q 10-bit 4:2:2 Intra 24p. Data volume can be up to 1200 Mbps, so a CFexpress Type A memory card (VPG200 or higher) is required.

### MPEG-H HEVC/H.265 coding

The XAVC HS™<sup>\*1</sup> format uses MPEG-H HEVC/H.265 coding to deliver better image quality than XAVC S at a comparable bit rate, and equal quality to XAVC S with smaller file size at lower bit rates. Long GOP video can be recorded internally to SDXC/SDHC or CFexpress Type A<sup>\*2</sup> memory cards.

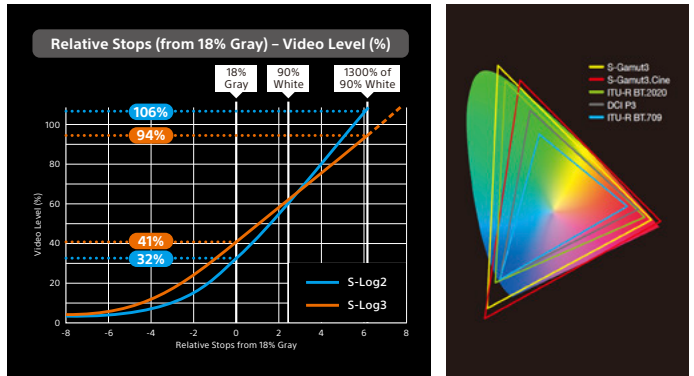
<sup>\*1</sup> XAVC HS compatible editing software such as Catalyst Browse™ version 2020.1 required.  
<sup>\*2</sup> SDXC memory card (V60 or higher) or CFexpress Type A memory card (VPG200 or higher) required for 120p recording.



### Better S-Log3 matching with professional cinema cameras

S-Log2 and S-Log3 gamma curves are provided, the latter emphasizing gradation characteristics from shadows to mid-gray and making it possible to achieve 15+ stops of dynamic range<sup>\*1</sup>. 10-bit 4:2:2 recording further enhances the dynamic range and color advantages provided by S-Log gamma. S-Gamut3 and S-Gamut3.Cine color gamut settings make it easy to match footage shot on the α1 with footage shot on the VENICE, PXW-FX9, or other professional cinema cameras equipped with S-Log3 gamma curve settings. The minimum ISO when shooting S-Log is 800, and the expanded ISO range can be used as well. This means that sensitivity can be lowered by as much as 2 stops below the normal ISO range, for extra low noise.

<sup>\*1</sup> When recording with S-Log3. Sony internal tests.



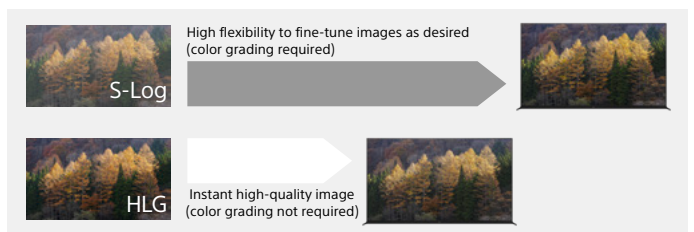
### S-Cinetone™ for that expressive cinematic look

The α1 offers S-Cinetone, the same color matrix that produces the highly regarded FX9 and FX6 color and skin tones. Based on technology acquired through development of cinema cameras such as VENICE, S-Cinetone delivers natural mid-tones that are essential to healthy-looking skin color, plus soft colors and gorgeous highlights. S-Cinetone responds to a growing need for more expressive depth.



### 10-bit 4:2:2 HLG (Hybrid Log-Gamma)

An HLG (Hybrid Log-Gamma) picture profile supporting the wide-gamut BT.2020 color space is provided. Video recorded with this picture profile can be directly played back on an HDR (HLG) compatible TV connected via HDMI, delivering true-to-life imagery with detailed shadows and highlights, without the need for color grading.



### 16-bit RAW output

The α1 allows 16-bit RAW output to an external recorder<sup>\*1</sup> via its HDMI Type A connector, to maximize post-production flexibility. Full-frame 4332 x 2446 (16:9 aspect ratio) 16-bit image output easily covers DCI-4K resolution (4096 x 2048), with a choice of frame rates and color spaces. It is also possible to output RAW via HDMI while recording XAVC HS 4K, XAVC S 4K, or XAVC S-I 4K to internal card media. An external recorder can also be used to convert the recorded data to other formats for non-linear editing.

<sup>\*1</sup> Compatible recorders to be announced.

### Digital audio interface for enhanced sound

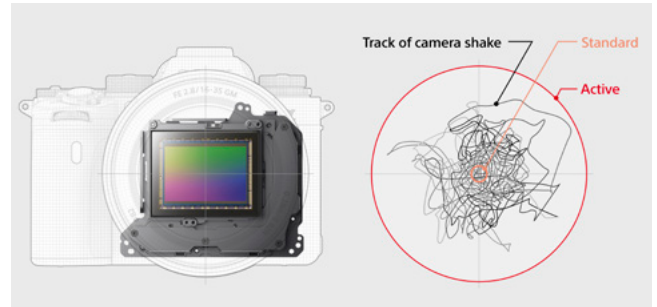
The α1 Multi Interface (MI) Shoe includes a digital audio interface that can directly receive digital output from the optional ECM-B1M Shotgun Microphone or XLR-K3M XLR Adaptor Kit for cleaner, clearer audio recordings. Used with the α1, the XLR-K3M XLR Adaptor Kit additionally provides 4-channel 24-bit digital audio recording capability. Three recording formats are available: 48 kHz/16 bit 2 channel, 48 kHz/24 bit 2 channel, and 48 kHz/24 bit 4 channel. Like other MI shoe accessories, no cables or batteries are required so you have unrestrained moviemaking freedom.

# Comprehensive Tools for Creative Moviemaking

Whether you shoot solo or with a team, the  $\alpha$ 1 provides the AF speed, precision, and flexibility you need to get the job done as effectively as possible. You have a wide selection of E-mount lenses to work with, plus features that can bring out their very best.

## Active Mode stabilizes handheld movie shooting

The 5-axis optical in-body image stabilization system on the  $\alpha$ 1 includes an Active Mode<sup>\*1\*</sup> that is highly effective for handheld shooting. The powerful new BIONZ XR image processing engine makes it possible to precisely detect the required amount of compensation and apply appropriate optical stabilization for each format, including 4K. All of this is achieved without compromising the compact size and mobility of the  $\alpha$  system. In-body image stabilization works with a wide range of lenses, including E-mount lenses that do not include stabilization of their own, and compatible A-mount lenses attached via a mount adaptor.



\*1 Slight image crop in Active Mode. \*Standard\* setting recommended for focal lengths of 200mm or longer.  
 \*2 Active Mode is not available for 8K recording or when recording at frame rates of 120 (100) fps or higher.

## Fast Hybrid AF locks on quickly and tracks tenaciously

The  $\alpha$ 1 includes Fast Hybrid AF that combines the benefits of phase-detection and contrast-detection AF for movies as well as stills. Focus is precisely and smoothly maintained over a wide area even when using a narrow depth of field or tracking fast-moving subjects. Fast Hybrid AF works in all movie recording modes including 8K 30p and 4K 120p. Focus is reliably maintained even when the subject is briefly obscured or when shooting with deep depth of field.



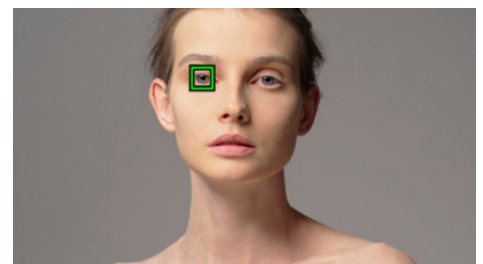
## Leave focus details to the camera

AF Transition Speed and AF Subject Shift Sensitivity parameters give you more versatile control over movie autofocus. The AF Transition Speed parameter provides seven speed settings that are ideal for creating rack focus effects to effectively guide the viewers' eye. The AF Subject Shift Sensitivity parameter has five sensitivity settings that determine how easily AF will switch to another subject or how tenaciously it will stay with the locked-on subject. Both of these parameters can be assigned to custom keys for fast access while shooting.

## Real-time Eye AF for movies

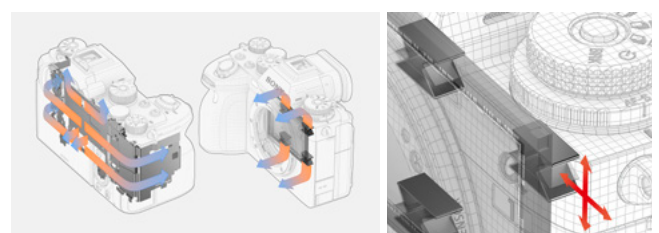
The superior real-time data processing capability of the new BIONZ XR image processing engine improves detection performance when shooting movies too<sup>\*1</sup>, ensuring accurate, reliable detection even when faces are looking away at more extreme angles, allowing the operator to concentrate fully on composition and timing without having to worry about focus. Real-time Eye AF is available in all recording modes, including 8K 30p and 4K 120p.

\*1 Animal and bird modes not supported.



## Efficient heat dissipation allows extended recording

The camera's design has been overhauled from the ground up to provide effective heat dissipation and prevent overheating during extended movie recording sessions. A graphite material that has excellent thermal conduction properties is formed into a unique  $\Sigma$  (sigma) shape and built into the image stabilization unit, allowing the image sensor to move freely during image stabilization while effectively conducting heat away. The result is five times<sup>\*1</sup> better heat dissipation than previous models. This makes it possible to record 8K 30p 10-bit 4:2:0 video continuously for approximately 30 minutes<sup>\*2</sup>.



\*1 Compared to the  $\alpha$ 7R IV. Sony internal tests with Auto Power OFF Temp. set to High.  
 \*2 Depending on shooting conditions.

## Intuitive touch subject selection

With Touch Tracking you simply touch the desired subject on the monitor screen to initiate AF and tracking on that subject. The powerful real-time processing capabilities of the new BIONZ XR image processing engine, plus advanced AI algorithms, allow the camera to process color, pattern (brightness), distance (depth), and Face/Eye information to precisely and smoothly track the selected subject while you concentrate on composition and shooting. This can be a tremendous advantage when using a gimbal or shooting solo. Touch operation can also be used to temporarily engage AF when focusing manually.

## 33.2-megapixel stills from 8K movies

High resolution stills can be extracted from recorded movies and saved to memory card: play back the movie, pause at the desired frame, and save as a still. The high resolution of the  $\alpha$ 1 makes it possible to extract 33.2-megapixel stills from any frame of an 8K 30p movie right in the camera. Extracted stills can be saved in JPEG or HEIF format.

## Flexible Exposure Mode for movies

The  $\alpha$ 1 features a Flexible Exposure Mode that offers professional camcorder style quick switching between auto and manual aperture, shutter speed, and ISO control when shooting movies with the mode dial set to "Movie" or "S&Q". Auto or manual operation can be selected, with manual aperture, shutter speed, and ISO control as the default. These functions can be assigned to custom buttons (the defaults are C1 for aperture, C2 for ISO, and C4 for shutter speed) for quick auto/manual mode switching.

## Custom zoom settings

When using a compatible powered zoom lens, the W (zoom out) and T (zoom in) zoom ring directions can be assigned as required. It is also possible to assign custom buttons for W and T operation, making it easier to zoom while watching the monitor during movie recording. Eight selectable zoom speeds are provided, and the zoom speed when the camera is in standby or record mode can be set independently.

## Clear recording-in-progress display

The monitor display has been redesigned with a bold, clearly visible red frame that makes it obvious when recording is in progress. This can be particularly useful when the camera is mounted on a rig or gimbal.

## Proxy recording

Low-bitrate HD proxy files can be recorded simultaneously with other recording formats, including XAVC S-I 4K. The smaller proxy video files can be used for editing previews prior to final 4K online editing, reducing computer load and enabling a faster workflow. 10-bit XAVC HS (1920 x 1080) or 8-bit XAVC S (1280 x 720) proxy recording can be selected as required.

## Other movie functions

- Display rotation
- Zebra display
- Peaking display (red, yellow, white, blue)
- Gamma display assist (OFF, Auto, S-Log2, S-Log3, HLG (BT.2020), HLG (709))
- TC/UB settings
- Rec control
- Marker display
- XAVC S, XAVC HS file name settings
- Initial focus magnifier magnification settings

## 8K & 4K with minimum rolling shutter

Rolling shutter effect is reduced by about 2.8 times compared to the  $\alpha$ 7R IV thanks to extremely high readout speeds enabled by the image sensor's stacked structure, advanced A/D conversion, and the powerful BIONZ XR processing engine. Increased image stability makes it easier to shoot moving subjects and use panning for dynamic impact.

## Interval recording with in-camera 8K capability

In-camera interval shooting facilitates production of 4K and high-resolution 8K time-lapse movies<sup>\*1</sup>. The shot interval can be set to anywhere between 1 second and 60 seconds, and the number of shots from 1 to 9999. Tracking sensitivity can be set to "High," "Mid," or "Low" to minimize changes in exposure over the shooting interval, for example. The Imaging Edge Desktop application can be used to remotely control the camera from a computer. You can even use silent mode for interval shooting to minimize vibration as well as wear on the mechanical shutter.

<sup>\*1</sup> Sony's Imaging Edge Desktop computer software (version 3.1 or later) can be used to produce time-lapse movies. Imaging Edge Desktop does not support 8K movies.

## White balance adjustment while recording movies

White balance settings can be adjusted to match changes in the scene while recording movies and sound. The white balance will change slowly and smoothly, without abrupt "jumps," allowing the operator to make appropriate adjustments when moving from indoor to outdoor situations while shooting a wedding, for example.

## NTSC and PAL formats on one card

NTSC and PAL format movie files can be stored on the same memory card. It is no longer necessary to format cards specifically for NTSC or PAL file storage, and no format warning will be displayed at startup.

## Display with external HDMI device

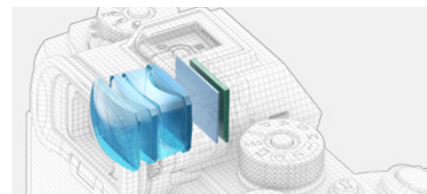
8K or 4K video can be simultaneously displayed on three devices: the camera monitor, an external HDMI recorder/monitor, and the Imaging Edge Mobile app connected via Wi-Fi. During proxy recording it is also possible to use the camera's Face Recognition and Real-time Eye AF functions.

# An Extension of Yourself

When you're in the zone and on a roll, you really need responsive, intuitive control. The camera must become an extension of your mind and eye so you can capture the world as it flashes by. With features and functionality based on professional user feedback, the α1 brings you closer than ever to that ideal.

## Responsive viewfinder with the highest resolution in its class<sup>\*1</sup>

The α1 features a 9.44 million-dot (approx.) electronic viewfinder with high-definition OLED display and refined optics that deliver the highest resolution in its class<sup>\*1</sup>. The viewfinder also works with the new BIONZ XR engine to offer the world's first<sup>\*1</sup> 240 fps refresh rate<sup>\*2</sup>, making it easier to follow fast-moving subjects and greatly reducing motion blur when panning or tilting. Other features that overwhelm the competition include 0.90x magnification<sup>\*3</sup> with a 41° FOV for a clear, wide view, and an updated structure that results in a 25mm high eye-point<sup>\*4</sup>. The viewfinder unit is dust and moisture resistant, responsive, and has switchable modes for different subject types. Every aspect of this advanced viewfinder has been designed and refined to provide optimum usability in professional workflows.



<sup>\*1</sup> As of the January 2021 product announcement. Compared to full-frame mirrorless cameras.

<sup>\*2</sup> Field of view is fixed at 33° and resolution is UXGA when selecting frame rate at 240 fps.

<sup>\*3</sup> 50mm lens, infinity, -1m-1 diopter.

<sup>\*4</sup> Distance from last optical surface, -1m-1 diopter (CIPA standard).

## Pan shots with electronic shutter<sup>\*1</sup>

Using electronic shutter at low shutter speeds can reduce display response, making it difficult to follow fast subjects. The Frame Rate Low Limit function can be engaged when shooting at shutter speeds lower than 1/60, to insert blackout frames at appropriate intervals to improve display response and make it easier to follow the subject without display lag.

<sup>\*1</sup> Effective at shutter speeds lower than 1/60 sec. Stills only. S and M modes only. Electronic shutter only.



## Smooth, responsive touch functions<sup>\*1</sup>

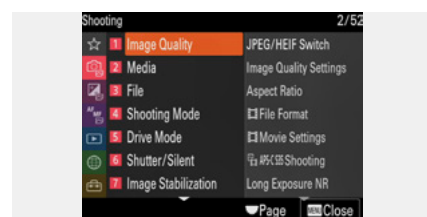
The advanced real-time processing capabilities of the new high-performance processing engine in the α1 also contributes to improved touch-screen response and more intuitive operation. The interface has been updated with touch function buttons on the shooting display that allow instant touch-selection of Touch Tracking and Touch Focus. There's also a Touchpad function that lets you drag the focus frame to any desired point with a fingertip. The tiltable LCD monitor is an advantage too: it can be positioned to provide easy touch-function access.

<sup>\*1</sup> "Touch Operation" must be turned ON via the menu.



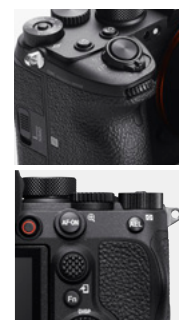
## Touch menu control and improved touch response

The α1 features an updated menu system that responds to the needs of professional photographers and videographers. A revised menu structure offers easier navigation, while touch-responsive menu operation provides faster, more intuitive control. Parameters can be instantly selected by directly touching them on the display panel, and lists can be scrolled by touch for unprecedented navigation and operation efficiency. Touch operation is also available during playback: images can be selected by touch, and pinch-out/pinch-in gestures can be used to enlarge or reduce the selected image.



## Designed for dependable, efficient operation

To minimize stress on the user when shooting for long periods of time and/or with long telephoto lenses, the grip has been redesigned for greater comfort and surer hold. An AF-ON button features optimized tactile feedback and is positioned for easy access and operation. A refined, responsive multi-selector features a carefully designed shape and a textured surface for a solid grip and control feel. The mode dial settings have been rearranged, and some default settings have been changed for more efficient operation. An exposure dial lock button is provided at the center of the exposure compensation dial. The shape and position of the rear dial have been revised for even easier access and operation. Independently operable stacked drive mode and focus mode dials allow fast access to and selection of drive and focus modes. All of this adds up to smooth, intuitive control that lets you concentrate on shooting, not the camera.



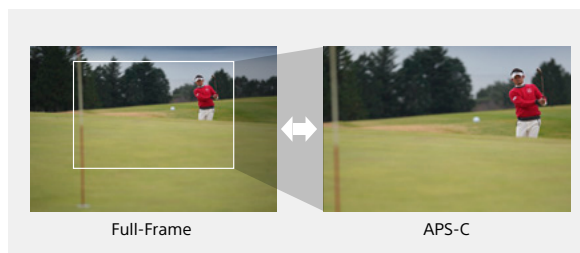


## Seamlessly switch between full-frame and APS-C

M and S size images<sup>\*1</sup> have the same number of pixels in the full-frame and APS-C modes, so you can switch seamlessly between full-frame and APS-C while shooting the same scene. And because the full array of 759 phase detection points is available in APS-C mode as well as full-frame mode<sup>\*2</sup>, you get the same smooth AF performance.

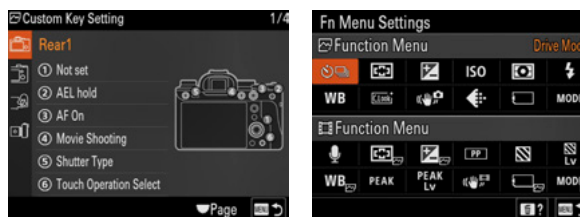
\*1 JPEG and HEIF only.

\*2 When using a full-frame lens.



## Custom button function assignment

164 functions are assignable to 17 custom buttons and dials. Independent function sets can be assigned for stills, movies, and playback. The α1 additionally allows the front and rear dials to be customized with independent functions for stills and movies. When shooting movies with fixed shutter speed and aperture settings, the dials can be assigned to ISO, white balance, or other parameters for a more efficient, productive workflow.



## Independent still and movie settings

A subset of the camera's shooting settings now change according to the selected shooting mode. This can be an advantage when you want to use different aperture, shutter speed, ISO, and other settings for stills and movies. The available settings are: Aperture, Shutter Speed, Exposure Compensation, ISO Sensitivity, Metering Mode, White Balance, and Picture Profile.

## Quick format

In addition to full formatting, it is now possible to quickly format memory cards in-camera. A quick format operation can be faster than a full format, saving time when you need to get on with the job at hand.

## Folder name editing

When creating a new folder, the last five characters of the folder name can be specified using the alphabet, numbers, and symbols, making it easier to identify folder contents after a shoot. There is also a handy reset function that resets the still image file number and creates a new folder. You can start numbering image files from "0001," for example, for each new day or event.

## Rating and protect functions

Star ratings (1 to 5 stars) can be applied to still images right from the camera controls. The same ratings are maintained when the images are imported into Sony's Imaging Edge Desktop software running on a computer. The rating function can be assigned to a custom button so that ratings can be applied via the review playback display. There is also a protect function that can prevent accidental erasure of images. The protect function can be assigned to a custom button so that images can be quickly protected during review. Ratings and protection can be applied via the review playback display on location or while traveling to save time.

## In-camera cropping

Images shot on the α1 can be trimmed in-camera to a desired aspect ratio, size, or position. The trimmed image is saved as a separate file, so the original image remains intact. The selectable aspect ratios are: 3:2, 4:3, 16:9, 1:1, 2:3, 3:4, and 9:16. This feature can be an advantage for sports and news photographers who need to deliver final images as quickly as possible.

## Efficient folder selection

If you have created folders to organize your still images, the α1 provides a number of features that make folder selection easy. You get a list display of existing folders, and information about the contents of existing folders is displayed on the right side of the display (thumbnails and file names of the first and last images in the folder).

## Clear Image Zoom with electronic shutter

Clear Image Zoom offers versatile digital zoom capability while maintaining subjective resolution. In the α1 it provides up to 2x zoom with minimal loss in subjective resolution, and it works both with the camera's mechanical and electronic shutters. This means that all of the benefits of the electronic shutter, including blackout-free shooting, up to 120 AF/AE calculations per second, continuous shooting at up to 30 fps, silent shooting, and more are available for use with the Clear Image Zoom function.

## External flash control

Flash control has been improved too: compatible flash and radio wireless commander units connected to the camera can be controlled directly from the camera interface. You can focus your attention in one place for faster, more efficient operation.

# Reliability Keeps the Creativity Flowing

Your creativity is too valuable to interrupt with power and reliability issues. Your camera must be ready for action at any moment, in any conditions. The  $\alpha$ 1 won't let you down.

## Z-series Battery for extended recording

With Sony's high-capacity Z battery and circuitry designed to optimize power efficiency in all shooting conditions, the  $\alpha$ 1 can shoot as many as 430 still images per charge when using the electronic viewfinder, or 530 still images when using the LCD monitor. Shooting and recording capacity can be further increased by using the VG-C4EM vertical grip with two NP-FZ100 batteries. External power options include USB power\*1 and an AC adapter, as appropriate for the working environment. Battery drain can be minimized by adding a high-capacity mobile battery when stamina and mobility are required for outdoor shooting.

\*1 USB charging and power delivery are only supported via the USB Type-C® terminal. A battery must be installed in the camera when supplying USB power. The internal battery may drain even if USB power is supplied, depending on the adapter used and camera operating conditions.

## USB PD (Power Delivery) supports fast charging

The  $\alpha$ 1 supports USB PD (Power Delivery), allowing higher power to be supplied from an external source so that recording can be continued for extended periods without draining the internal battery\*1. A USB charger or mobile battery that supports USB PD\*2 can be connected to the camera's USB Type-C® port, supplying power or charging the internal battery at 3 to 4 times\*3 the rate of the  $\alpha$ 7R IV.

\*1 USB charging and power delivery are only supported via the USB Type-C® terminal. A battery must be installed in the camera when supplying USB power. The internal battery may drain even if USB power is supplied, depending on the adapter used and camera operating conditions.

\*2 Compatibility not guaranteed with all USB PD devices. The internal battery will not be charged while camera power is ON and the camera is in use.

\*3 Sony test conditions.

## Auto Monitor OFF

When shooting stills, the camera's monitor will automatically shut off after a specified amount of time. This function can be used in addition to the normal Power Save mode when power consumption needs to be minimized.

## Power Save OFF

The Power Save mode automatically shuts the camera down after a specified amount of time in order to prevent unnecessary battery drain. In addition to the previous 30 min., 5 min., 2 min., 1 min., and 10 sec. settings, the  $\alpha$ 1 provides a new Off setting that can be useful when the camera is used in remote situations where automatic shutdown might be problematic. Shooting can be resumed at any time by half-pressing the shutter button or performing other operations.

## Two CFexpress Type A compatible media slots

The  $\alpha$ 1 has two media slots that both support UHS-I and UHS-II SDXC/SDHC cards as well as new CFexpress Type A cards. CFexpress Type A cards are ideally suited to high-speed continuous still shooting as well as high-resolution, high-bitrate 8K and 4K movie recording. Stills and movies can be recorded to memory media in numerous ways, to match a wide range of applications. The same data can be simultaneously recorded to both cards for backup with automatic transfer to a remote PC or server if needed, or stills/movies and JPEG (HEIF)/RAW files\*1 can be sorted and saved in a number of ways. There is also a "relay" mode in which still image or movie recording will automatically switch to the second media card when the first media card becomes full.

\*1 Different types of RAW files cannot be saved to the two media slots.





### Durable mechanical shutter

Mechanical shutter vibration that can cause blur is reduced to a minimum while allowing high-speed continuous shooting at up to 10 frame per second thanks to a new shutter unit with a fast-response motor. The system also includes a brake and dual dampers that subdue mechanical shutter vibration. The shutter is quiet and has been tested for durability in excess of 500,000 shutter cycles<sup>\*1</sup>. Additional vibration reduction is provided by dampers between the shutter unit and chassis, and refined image stabilization algorithms minimize blur when shooting stills.

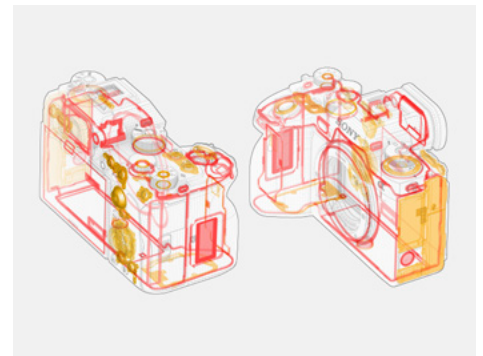
<sup>\*1</sup> When Flash Sync. Speed Priority is OFF. Sony internal tests.



### Dust and moisture resistant design

The α1 features an advanced dust and moisture resistant design with many refinements throughout the body. Sealing is provided at all body seams as well as the battery compartment cover, and the media slot has a double sliding cover and lock lever rather than a hinged cover to keep water out. The EVF features a sealed optical path that results in even higher dust and moisture resistance than the α9 II. A lens lock button and cushioning around the mount are other refinements that contribute to outstanding reliability even in challenging outdoor conditions. Used with dust and moisture resistant lenses, flash units, and/or a vertical grip such as the optional VG-C4EM, the α1 becomes the core of a rugged dust and moisture resistant system<sup>\*1</sup>.

<sup>\*1</sup> Not guaranteed to be 100% dust and moisture proof.



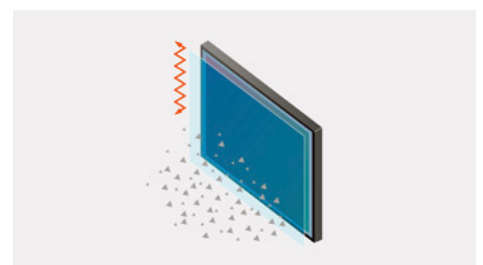
### Magnesium alloy chassis

High body durability has been achieved through the use of a lightweight, high-rigidity magnesium alloy for the top cover, front cover, internal frame, and rear cover. This maximizes durability for hard-working professionals while simultaneously improving heat dissipation without significantly increasing body size. The α1 provides a solid platform for all E-mount lenses, right up to super-telephoto types.



### Anti-dust system

An ultrasonic actuator causes the filter in front of the image sensor to oscillate at more than 70,000 cycles per second, effectively removing dust and particles from the filter surface. Effective cleaning means that lenses can be changed when shooting stills or movies without having to worry about dust that can require tedious retouching during post-production. The anti-dust system is automatically activated whenever the camera is turned off, and can be activated manually via a menu whenever required.



### Shutter closed on power-off

This function closes the shutter when the camera's power is turned off, further protecting the image sensor from dust and particles while changing lenses.

## Fast, Efficient Workflow

Visual creation goes beyond the primary act of shooting imagery. Once your images are captured, they need to be sorted, edited, and delivered. The  $\alpha$ 1 and  $\alpha$  ecosystem provide all the support you need for a fast, efficient workflow.

### Built-in Wi-Fi supports 2x2 MIMO

Built-in Wi-Fi (IEEE 802.11a/b/g/n/ac) allows communication on the 2.4 GHz and 5 GHz<sup>\*1</sup> bands, the latter with 2x2 MIMO support for industry-leading speed<sup>\*2</sup>. Dual antennas ensure reliable communication, even with the camera's durable magnesium alloy chassis. The fact that no external Wi-Fi adapter is needed means that none of the mobility and handling advantages of a compact mirrorless body are compromised. 5 GHz communication offers maximum speed and stability for news and sports shooters who need to deliver immediately via FTP, as well as for studio environments.

\*1 5 GHz communication may be restricted in some countries and regions.

\*2 As of the January 2021 product announcement, Sony survey of interchangeable-lens digital still cameras.

### USB Type-C® connector supports SuperSpeed 10 Gbps USB

A USB Type-C® connector that supports fast SuperSpeed USB 10 Gbps (USB 3.2) data transfer is provided. This makes high-speed PC Remote (tethered) data transfer available for smooth handling of large image files.

### 1000BASE-T Ethernet for fast communication

The  $\alpha$ 1 provides a built-in connector for wired 1000BASE-T, enabling gigabit communication for high-speed, stable data transfer operations, including remote shooting.



### Versatile interface

The  $\alpha$ 1 offers a wide range of connection options with a 1000BASE-T wired LAN connector, a USB Type-C® connector for SuperSpeed USB 10 Gbps (USB 3.2), a Multi/Micro USB terminal, an HDMI Type-A connector, a sync terminal, a microphone jack, a headphone jack, and wireless NFC communication.

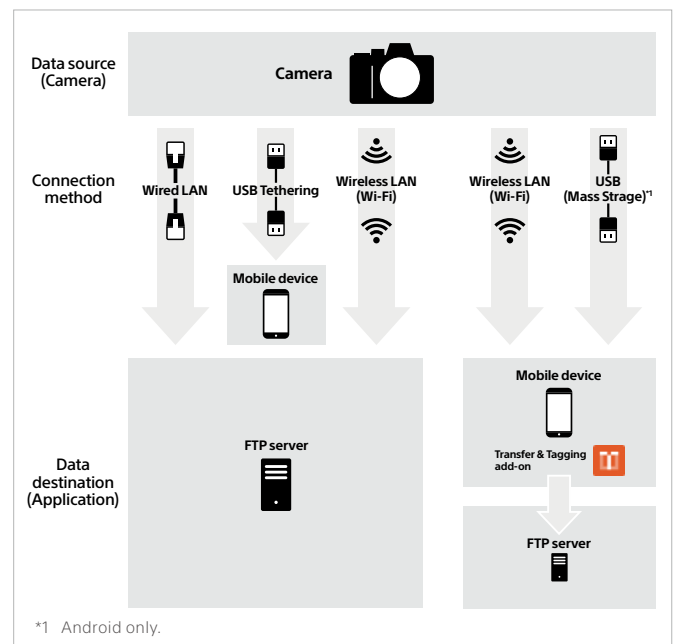


### FTP file transfer

This function allows the  $\alpha$ 1 to transfer still image and movie files to a specified remote FTP server via wireless LAN, high-speed wired LAN, or USB tethering with smartphones. Both still image and movie files can be transferred. It is also possible to transfer only protected files, transfer single files via custom key assignment, transfer files of a specific format (JPEG or HEIF/RAW), and more. Up to nine FTP servers can be pre-registered. FTPS (File Transfer over SSL/TLS) is supported, allowing SSL or TLS encryption for increased data security. While the  $\alpha$ 9 II used single-threaded communication, the  $\alpha$ 1 features more robust multi-threading. Multi-threading with Wi-Fi 11ac 2x2 MIMO allows the  $\alpha$ 1 to simultaneously transfer 3.5x times as much data as the  $\alpha$ 9 II.

### FTP settings save and load

FTP transfer settings can be saved to and loaded from a memory card separately from the camera settings. This can be useful when connecting multiple cameras of the same model number to an FTP server. Up to 10 sets of settings can be saved to one memory card.



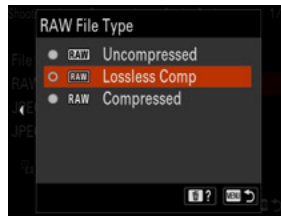
### Smartphone support

Compatible 5G smartphones can be tethered to the  $\alpha$ 1 via its USB Type-C® connector, allowing fast, stable FTP transfer via a 5G network. It is also possible to transfer files from memory card in the camera to a paired smartphone via Wi-Fi even if the camera power is OFF. Movie files can also be transferred in this way.



### Lossless compression

In addition to compressed and uncompressed RAW, the α1 includes efficient lossless compression. The lossless compressed setting provides the same image quality as uncompressed RAW while reducing file size by 50–80%. Compressed RAW allows continuous shooting of approximately 155 still images at up to 30 fps, and is the best choice when the highest available burst speed is needed for RAW shooting.



### Versatile tethered shooting functions

The α1 can be connected to a computer via Wi-Fi for wireless PC Remote (tethered) shooting using Sony’s Imaging Edge Desktop application, allowing the photographer to set up and move around with fewer restrictions. 2.4 GHz or 5 GHz Wi-Fi bands\*1 can be selected as required. A USB Type-C® connector that supports fast SuperSpeed USB 10 Gbps (USB 3.2) data transfer provides another tethered shooting option, allowing fast, stress-free wired PC Remote shooting. The Imaging Edge Mobile application\*2 allows a compatible mobile device to be used as a remote-control terminal and data transfer hub.

\*1 5 GHz communication may be restricted in some countries and regions.  
 \*2 Imaging Edge Mobile Ver. 7.5 or later required.

### Imaging Edge Mobile

Built-in Wi-Fi 11ac with 2x2 MIMO support makes it possible to transfer image files to the Imaging Edge Mobile application at higher speeds than are possible with the α9 II. The α1 additionally allows transfer of RAW images. You can even switch between the Imaging Edge Mobile application image transfer and remote-control functions from the smartphone. Touch Tracking and Touch Focus can be controlled from the Imaging Edge Mobile application too.

### Transfer & Tagging Add-on

Voice memos attached to images via the α1 can be read into the Transfer & Tagging Add-on for mobile devices (version 1.3 or later) and automatically converted to text captions. The Transfer & Tagging Add-on can then automatically add the converted text to JPEG and HEIF\*1 images in the form of IPTC metadata, or the text can be manually copied and pasted as required. Once the desired processing has been done, the Transfer & Tagging Add-on can transfer the files to an FTP server from a smartphone tethered via USB or Ethernet\*2.

\*1 Not supported by Android as of November 2020. The crop, straighten, and resize functions that are available for JPEG images are not available for HEIF images.  
 \*2 Supported by Android 11 or later. Not supported by iOS as of November 2020.

### Imaging Edge™ Desktop applications (Remote/Viewer/Edit)

Elevate your photography with 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\*1.

\*1 Refer to the download page for details: <https://www.sony.net/disoft/d/>

### Remote Camera Tool

Remote Camera Tool\*1 is a software application that allows PC Remote shooting via wired LAN. With the camera connected to a computer or switching hub via LAN cable, you can change camera settings and capture images directly from the computer. The α1 offers faster data transfer while adding HEIF support and other enhancements.

\*1 Version 2.3 or later.

### New “Light” JPEG quality setting

The α1 includes a new “Light” JPEG\*1 quality setting that results in smaller files than the “Standard” setting, allowing faster deliver for news and sports photographers who depend on speed.



\*1 If [JPEG/HEIF Select]/[HEIF] is selected, “Light” HEIF files will be recorded.



### Imaging Edge™ Webcam

Imaging Edge Webcam software lets you connect your Sony α camera to a Mac or Windows computer and use it as a high-quality webcam for live streaming or video conferencing.

## Lenses that Bring Out the Best in the α1

The α1 is a product of extraordinary technological evolution and commitment. Sony's E-mount lenses come from the same background, and are indisputably the best choice if you want maximum performance from your state-of-the-art E-mount camera.



**FE 100mm F2.8 STF GM OSS** (SEL100F28GM)

1/200 sec., F5.6, ISO100



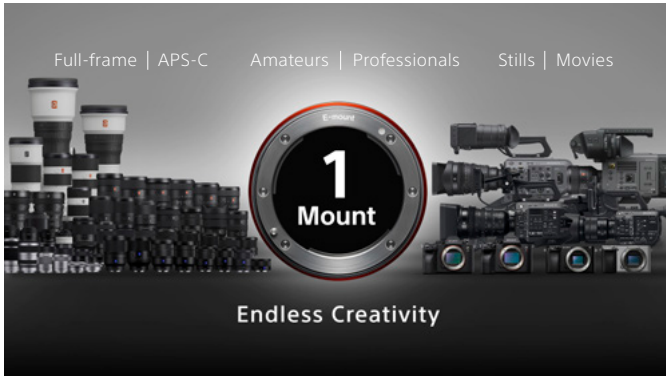
**FE 24-70mm F2.8 GM** (SEL2470GM)

1/80 sec., F8, ISO 100



**FE 16-35mm F2.8 GM** (SEL1635GM)

1/6400 sec., F4.5, ISO 2000



**One Mount**

The One Mount concept brings Sony’s most advanced imaging technology together via the E-mount platform, seamlessly connecting full frame and APS-C, stills and movies, amateurs and professionals through a versatile range of camera bodies and lenses that offer unlimited creative potential.



Sony | One Mount special page coming soon.

<https://www.sony.net/onemount>

E-mount **G Master™**  MASTER



**FE 24mm F1.4 GM**  
(SEL24F14GM)



**FE 35mm F1.4 GM**  
(SEL3514GM)



**FE 85mm F1.4 GM**  
(SEL85F14GM)



**FE 100mm F2.8 STF GM OSS**  
(SEL100F28GM)



**FE 135mm F1.8 GM**  
(SEL135F18GM)



**FE 12-24mm F2.8 GM**  
(SEL1224GM)



**FE 16-35mm F2.8 GM**  
(SEL1635GM)



**FE 24-70mm F2.8 GM**  
(SEL2470GM)



**FE 70-200mm F2.8 GM OSS**  
(SEL70200GM)



**FE 100-400mm F4.5-5.6 GM OSS**  
(SEL100400GM)



**FE 400mm F2.8 GM OSS**  
(SEL400F28GM)



**FE 600mm F4 GM OSS**  
(SEL600F40GM)

E-mount **G Lens™** 



**FE 20mm F1.8 G**  
(SEL20F18G)



**FE 90mm F2.8 Macro G OSS**  
(SEL90M28G)



**FE 12-24mm F4 G**  
(SEL1224G)



**FE C 16-35mm T3.1 G**  
(SEL1635G)



**FE 24-105mm F4 G OSS**  
(SEL24105G)



**FE PZ 28-135mm F4 G OSS**  
(SELP28135G)



**FE 70-200mm F4 G OSS**  
(SEL70200G)



**FE 70-300mm F4.5-5.6 G OSS**  
(SEL70300G)



**FE 200-600mm F5.6-6.3 G OSS**  
(SEL200600G)



**1.4x Teleconverter Lens**  
(SEL14TC)  
for SEL70200GM, SEL100400GM,  
SEL200600G, SEL400F28GM and  
SEL600F40GM



**2x Teleconverter Lens**  
(SEL20TC)  
for SEL70200GM, SEL100400GM,  
SEL200600G, SEL400F28GM and  
SEL600F40GM

# Options for Expanded Still and Movie Capability

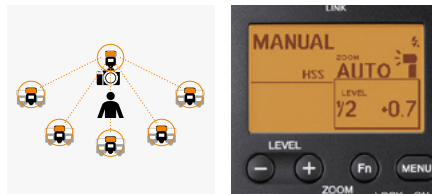


Vertical Grip  
**VG-C4EM**

- Optimum hold<sup>\*1</sup> and control comfort when shooting in vertical orientation
- Houses two NP-FZ100 batteries for longer operation, and supports USB charging via the camera

These vertical grips duplicate the controls on the respective camera bodies, providing the same control access for vertical shooting. The grip shape is the same too, for seamless, comfortable switching between horizontal and vertical orientation. Both models feature the same magnesium-chassis rigidity as the bodies. The VG-C4EM equals the dust and moisture resistance of the α1 body<sup>\*2</sup>. In addition to holding two NP-FZ100 batteries for extended shooting time, camera and battery charging power can be supplied via the USB connector.<sup>\*3</sup>

<sup>\*1</sup> Simultaneous use with LE-EA2 or LA-EA4 mount adaptor not supported due to narrow clearance between mount adaptor and vertical grip.  
<sup>\*2</sup> Not guaranteed to be 100% dust and moisture proof.  
<sup>\*3</sup> Power supply and charging cannot be carried out simultaneously.



Radio Wireless Flash  
**HVL-F60RM**

- Pro-performance clip-on flash with high GN60<sup>\*1</sup> output
- Functions as a wireless radio commander or receiver in multi-flash setups

The HVL-F60RM is powerful and convenient for use in the field or studio, delivering up to Guide Number 60<sup>\*1</sup> power with a 1.7-second<sup>\*2</sup> recycle time. It can be used as a wireless radio receiver or commander that can control up to 15 compatible off-camera flash units or receivers in up to 5 groups.<sup>\*3</sup> Radio wireless works reliably at distances up to 30 meters.<sup>\*4</sup>

High-visibility menus and a Quick Navi interface offer easy, intuitive operation, while customizable keys give you direct access to the functions you use the most. The flash head rotates and tilts for flexible lighting in a wide range of situations, and the overall design is dust and moisture resistant<sup>\*5</sup> for high reliability. An AF illuminator light is included for reliable focusing.

<sup>\*1</sup> 105mm at ISO 100 in meters.  
<sup>\*2</sup> 1/1 manual flash emission, alkaline batteries.  
<sup>\*3</sup> Up to 5 groups in GROUP mode, and up to 3 groups in TTL or MANUAL mode.  
<sup>\*4</sup> Internal Sony tests.  
<sup>\*5</sup> Not guaranteed to be 100% dust and moisture proof.



CFexpress Type A Memory Cards  
**CEA-G80T/CEA-G160T**

- Ultra-fast write speeds of up to 700MB/s<sup>\*1</sup> for stress-free burst and high-resolution imaging.
- VPG (Video Performance Guarantee) 400 supported.
- Enhanced workflow with extremely high read speeds of up to 800MB/s<sup>\*1</sup>.
- TOUGH & IP57-rated for professional reliability.
- Effective heat dissipation for long movie shooting.
- Use with dedicated MRW-G2 card reader for dramatically improved workflow efficiency.

<sup>\*1</sup> Based on Sony testing. Actual performance may vary depending on environment and usage.



Flash  
**HVL-F45RM**



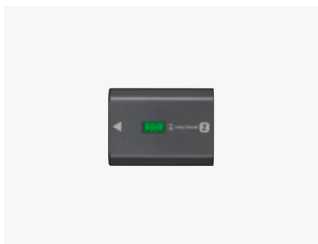
Flash  
**HVL-F28RM**



Remote Commander  
**RMT-P1BT**



Shotgun Microphone  
**ECM-B1M**



Rechargeable Battery Pack  
**NP-FZ100**



Multi Battery Adaptor Kit  
**NPA-MQZ1K**



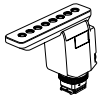
Battery Charger  
**BC-QZ1**



CFexpress Type A /SD Card Reader  
**MRW-G2**



## Microphone



Shotgun Microphone  
ECM-B1M



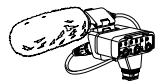
Shotgun Microphone  
ECM-CG60



Stereo Microphone  
ECM-XYST1M



Wireless Microphone  
ECM-W1M



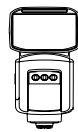
XLR Adaptor Kit  
XLR-K3M

## Microphone

## Flash



Wireless Microphone  
ECM-AW4



Flash  
HVL-F60RM



Flash  
HVL-F45RM



Flash  
HVL-F28RM



Wireless Radio  
Commander  
FA-WRC1M



Wireless Radio  
Receiver  
FA-WRR1

## Tripod / Commander

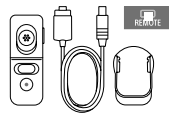
## Vertical Grip



Wireless Remote Commander  
GP-VPT2BT



Remote Control Tripod  
VCT-VPR1



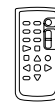
Remote Commander  
RM-VPR1



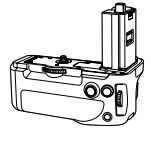
Remote Commander  
RM-SPR1



Wireless Remote Commander  
RMT-P1BT



Remote Commander  
RMT-DSLR2



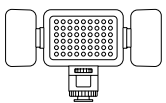
Vertical Grip  
VG-C4EM

## Light

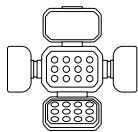


## Monitor

## Power



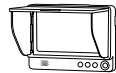
Battery Video Light  
HVL-LE1



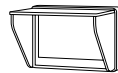
Battery Video Light  
HVL-LBPC



Battery Video IR Light  
HVL-LEIR1



Clip-on LCD Monitor  
CLM-FHD5



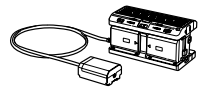
Clip-on LCD Monitor  
CLM-V55



Rechargeable  
battery Pack  
NP-FZ100



Battery Charger  
BC-QZ1



Multi Battery Adaptor Kit  
NPA-MQZ1K

## Other



Mount Adaptor  
LA-EA5



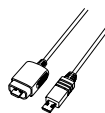
Body Cap  
ALC-B1EM



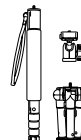
Circular PL Filters  
VF-49CPAM/VF-49CPAM2  
VF-55CPAM/VF-55CPAM2  
VF-62CPAM/VF-62CPAM2  
VF-67CPAM/VF-67CPAM2  
VF-72CPAM/VF-72CPAM2  
VF-77CPAM/VF-77CPAM2  
VF-82CPAM/VF-82CPAM2



MC Protectors  
VF-M405MP/VF-82MPA/  
VF-77MPAM/VF-72MPAM/  
VF-67MPAM/VF-62MPAM/  
VF-55MPAM/VF-49MPAM



Multi Terminal  
Connecting Cable  
VMC-MM1



Multipod  
VCT-MP1



Tripod  
VCT-P300



**Sony | Accessory Support Page:**

<https://www.sony.net/dics/acc/>

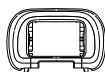


**Sony | Photo Gallery:**

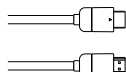
[http://www.sony.net/Products/di\\_photo\\_gallery/](http://www.sony.net/Products/di_photo_gallery/)



LCD Protect Semi  
Hard Sheet  
PCK-LG1



Eyepiece Cup  
FDA-EP19



HDMI Cable  
DLC-HX10



CFexpress Type A  
Memory Cards  
CEA-G80T/CEA-G160T



CFexpress Type A /  
SD Card Reader  
MRW-G2



Shoe Cap  
FA-SHC1M



**Sony | Camera Channel:**

<https://www.youtube.com/c/ImagingbySony>

# Controls

- 1 AF illuminator/ Self-timer lamp/ Visible light and IR sensor
- 2 Front dial
- 3 Infrared remote sensor
- 4 Image sensor
- 5 Lens contacts
- 6 Lens release button
- 7 Mounting index
- 8 Mount
  
- 9 Hook for shoulder strap
- 10 Microphone jack
- 11 LAN terminal
- 12 Headphones jack
- 13 Flash sync terminal
- 14 HDMI Type A jack
- 15 Speaker
- 16 Charge lamp
- 17 USB Type-C terminal
- 18 Multi/Micro USB Terminal
  
- 19 Focus mode dial
- 20 Drive mode dial
- 21 Microphone
- 22 Multi Interface Shoe
- 23 Microphone
- 24 C2 button (Custom button 2)
- 25 ON/OFF (Power) switch
- 26 C1 button (Custom button 1)
- 27 Image sensor position mark
- 28 Mode dial lock release button
- 29 Mode dial
- 30 Rear dial
- 31 Shutter button
- 32 Exposure compensation dial
- 33 Exposure compensation dial lock release button





- 34 For shooting: C3 button (Custom button 3)  
For Viewing: Protect button
- 35 MENU button
- 36 Eyepiece Cup
- 37 Monitor
- 38 Eye sensor
- 39 Viewfinder
- 40 MOVIE (Movie) button
- 41 For shooting: AF-ON (AF On) button  
For viewing: Enlarge button
- 42 For shooting: AEL button  
For viewing: Image index button
- 43 Multi-selector
- 44 For shooting: Fn (Function) button  
For viewing: Send to Smartphone button
- 45 Control wheel
- 46 For shooting: C4 button (Custom button 4)  
For viewing: Delete button
- 47 Access lamp
- 48 Playback button
  
- 49 Battery cover
- 50 Tripod socket hole
  
- 51 Diopter-adjustment dial
- 52 Hook for shoulder strap
- 53 Media slot cover
- 54 N mark



# Supplementary Info for Stills and Movies

## Number of recordable frames for single media (Image size L 50M, aspect ratio 3:2)

Format	SD Memory Card		CFexpress Type A Memory Card	
	64GB	128GB	80GB	160GB
JPEG Light	6800	13600	7900	15600
JPEG Standard	4700	9400	5400	10800
JPEG Fine	3200	6400	3700	7400
JPEG Extra Fine	1700	3400	1900	4000
HEIF Light	9100	18200	10600	21200
HEIF Standard	6800	13600	7900	15600
HEIF Fine	5100	10200	5900	11800
HEIF Extra Fine	3400	6900	4000	8000
RAW & JPEG (Compressed RAW) <sup>*1</sup>	700	1400	800	1700
RAW & HEIF (Compressed RAW) <sup>*1</sup>	800	1600	900	1800
RAW (Compressed RAW)	900	1900	1100	2200
RAW & JPEG (Lossless Compressed RAW) <sup>*1</sup>	600	1300	700	1500
RAW & HEIF (Lossless Compressed RAW) <sup>*1</sup>	700	1400	800	1600
RAW (Lossless Compressed RAW)	800	1600	900	1900
RAW & JPEG (Uncompressed RAW) <sup>*1</sup>	400	800	500	1000
RAW & HEIF (Uncompressed RAW) <sup>*1</sup>	400	900	500	1000
RAW (Uncompressed RAW)	500	1000	600	1200

\*1 [RAW+JPEG] with JPEG [Fine] quality. [RAW+HEIF] with HEIF [Fine] quality.

## Continuous recording time for movies

Auto Power OFF Temp. : Standard
Ambient temperature : 25 °C
Continuous recording time for movies (HD) : approx. 30 min
Continuous recording time for movies (4K) : approx. 10 min
Continuous recording time for movies (8K) : approx. 10 min
Ambient temperature : 40 °C
Continuous recording time for movies (HD) : approx. 20 min
Continuous recording time for movies (4K) : approx. 10 min
Continuous recording time for movies (8K) : approx. 10 min
Auto Power OFF Temp. : High
Ambient temperature : 25 °C
Continuous recording time for movies (HD) : approx. 120 min
Continuous recording time for movies (4K) : approx. 30 min
Continuous recording time for movies (8K) : approx. 30 min
Ambient temperature : 40 °C
Continuous recording time for movies (HD) : approx. 90 min
Continuous recording time for movies (4K) : approx. 10 min
Continuous recording time for movies (8K) : approx. 20 min

HD: XAVC S HD (60p 50M 4:2:0 8bit, WiFi not connected, CFexpress Type A memory card)

4K: XAVC S 4K (60p 150M 4:2:0 8bit, WiFi not connected, CFexpress Type A memory card)

4K: XAVC S 8K (60p 200M 4:2:0 10bit, WiFi not connected, CFexpress Type A memory card)

## Movie recording time for single media (Hours:Minutes:Seconds, Proxy of setting)

Format	Framerate	Bitrate (Mbps)	SD Memory Card		CFexpress Type A Memory Card	
			64GB	128GB	80GB	160GB
XAVC HS 8K	30p	400M	0:15:00	0:35:00	0:20:00	0:40:00
		200M	0:35:00	1:10:00	0:40:00	1:25:00
XAVC HS 4K	60p	200M	0:35:00	1:10:00	0:40:00	1:25:00
		150M	0:45:00	1:35:00	0:55:00	1:50:00
		100M	1:10:00	2:20:00	1:20:00	2:50:00
		75M	1:30:00	3:00:00	1:40:00	3:40:00
XAVC S 4K	60p	200M	0:35:00	1:10:00	0:40:00	1:25:00
		150M	0:45:00	1:35:00	0:55:00	1:50:00
XAVC S HD	60p	50M	2:10:00	4:30:00	2:30:00	5:10:00
		25M	3:50:00	8:10:00	6:30:00	9:10:00
XAVC S-I 4K	60p	600M	0:10:00	0:25:00	0:10:00	0:25:00
XAVC S-I HD	60p	222M	0:30:00	1:05:00	0:35:00	1:15:00

The above recording times are with [Px] (Proxy Recording) turned OFF.

• All recording times tested with Sony brand memory cards.

• Continuous recording times will vary according to recording mode and settings, the memory card used, ambient temperature, Wi-Fi conditions, usage conditions prior to movie recording, and battery charge. Maximum continuous movie recording time is approximately 13 hours (limited by product specifications).

## Movie formats for normal recording

Format	Rec size	Rec settings	Framerate	NTSC/PAL	FF/Super35	Codec	GOP/Intra	Bitrate (Mbps)	
XAVC HS 8K	7680x4320	4:2:0 10bit	30p	NTSC	FF	MPEG-H HEVC/H.265	Long GOP	400	
			24p	PAL				400	
			30p	NTSC				200	
			24p	PAL				200	
XAVC HS 4K	3840x2160	4:2:2 10bit	120p	NTSC	FF	MPEG-H HEVC/H.265	Long GOP	280	
			100p	PAL				280	
			60p	NTSC				200/100	
			50p	PAL				200/100	
			24p	NTSC				100/50	
		4:2:0 10bit	120p	NTSC	FF			200	
			100p	PAL				200	
			60p	NTSC				150/75/45	
			50p	PAL				150/75/45	
			24p	NTSC				100/50/30	
XAVC S 4K	3840x2160	4:2:2 10bit	120p	NTSC	FF	MPEG-4 AVC/H.264	Long GOP	280	
			100p	PAL				280	
			60p	NTSC				200	
			50p	PAL				200	
			30p	NTSC				140	
			25p	PAL				140	
			24p	NTSC				100	
		4:2:0 8bit	120p	NTSC	FF			200	
			100p	PAL				200	
			60p	NTSC				150	
			50p	PAL				150	
			30p	NTSC				100/60	
			25p	PAL				100/60	
			24p	NTSC				100/60	
XAVC S HD	1920x1080	4:2:2 10bit	60p	NTSC	FF	MPEG-4 AVC/H.264	Long GOP	50	
			50p	PAL				50	
			30p	NTSC				50	
			25p	PAL				50	
			24p	NTSC				50	
		4:2:0 8bit	120p	NTSC	FF			100/60	
			100p	PAL				100/60	
			60p	NTSC				50/25	
			50p	PAL				50/25	
			30p	NTSC				50/16	
25p	PAL	50/16							
	24p	NTSC	50						
	XAVC S-I 4K	3840x2160	4:2:2 10bit	60p	NTSC	FF	MPEG-4 AVC/H.264	All-Intra	600
				50p	PAL				600
				30p	NTSC				300
25p				PAL	240				
24p	NTSC	240							
XAVC S-I HD	1920x1080	4:2:2 10bit	60p	NTSC	FF	MPEG-4 AVC/H.264	All-Intra	222	
			50p	PAL				222	
			30p	NTSC				111	
			25p	PAL				111	
24p	NTSC	89							

# Main Specifications

General	Camera type	Interchangeable lens digital camera		
	Lens mount	E-mount		
Image sensor	Type	35mm full frame (35.9 x 24.0mm), Exmor RS CMOS sensor		
	Number of pixels (effective)	Approx. 50.1 megapixels		
	Number of pixels (total)	Approx. 50.5 megapixels		
	Image sensor aspect ratio	3:2		
	Color filter	R, G, B primary color		
	Anti-Dust function	Yes (Charge protection coating on Optical Filter and ultrasonic vibration mechanism)		
Recording system (still image)	Recording format	JPEG (DCF Ver. 2.0, Exif Ver. 2.32, MPF Baseline compliant), HEIF (MPEG-A MIAF compliant), RAW (Sony ARW 4.0 format compliant)		
	Image size (pixels)	[3:2]	35mm full frame L: 8640 x 5760 (49.7M), M: 5616 x 3744 (21M), S: 4320 x 2880 (12.4M), APS-C M: 5616 x 3744 (21M), S: 4320 x 2880 (12.4M)	
		[4:3]	35mm full frame L: 7680 x 5760 (44.2M), M: 4992 x 3744 (18.6M), S: 3840 x 2880 (11M), APS-C M: 4992 x 3744 (18.6M), S: 3840 x 2880 (11M)	
		[16:9]	35mm full frame L: 8640 x 4864 (42M), M: 5616 x 3160 (17.7M), S: 4320 x 2432 (10.5M), APS-C M: 5616 x 3160 (17.7M), S: 4320 x 2432 (10.5M)	
		[1:1]	35mm full frame L: 5760 x 5760 (33M), M: 3744 x 3744 (14M), S: 2880 x 2880 (8.2M), APS-C M: 3744 x 3744 (14M), S: 2880 x 2880 (8.2M)	
	Image quality modes	RAW (Compressed / Lossless Compressed / Uncompressed), JPEG (Extra fine / Fine / Standard / Light), HEIF (4:2:0 / 4:2:2) (Extra fine / Fine / Standard / Light), RAW & JPEG, RAW & HEIF		
	14bit RAW	Yes		
	Creative Look	ST, PT, NT, VV, VV2, FL, IN, SH, BW, SE, Custom Look (1-6)		
	Picture Profile	Yes (Off / PPI-PP1) Parameters: Black level, Gamma (Movie, Still, S-Cinetone, Cine1-4, ITU709, ITU709 [800%]), S-Log2, S-Log3, HLG, HLG1-3, Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset		
	Dynamic Range functions	Off, Dynamic Range Optimizer		
	Color space	sRGB standard (with sYCC gamut), Adobe RGB standard and Rec. ITU-R BT.2100 standard (BT.2020 gamut). <sup>1)</sup>		
	Recording system (movie)	Recording format	XAVC S, XAVC HS	
		Video compression	XAVC S: MPEG-4 AVC/H.264, XAVC HS: MPEG-H HEVC/H.265	
Audio recording format		LPCM 2ch (48kHz 16bit), LPCM 2ch (48kHz 24bit) <sup>2)</sup> , LPCM 4ch (48kHz 24bit) <sup>2)</sup> , MPEG-4 AAC-LC 2ch <sup>3)</sup>		
Creative Look		ST, PT, NT, VV, VV2, FL, IN, SH, BW, SE, Custom Look (1-6)		
Picture Profile		Yes (Off / PPI-PP1) Parameters: Black level, Gamma (Movie, Still, S-Cinetone, Cine1-4, ITU709, ITU709 [800%]), S-Log2, S-Log3, HLG, HLG1-3, Black Gamma, Knee, Color Mode, Saturation, Color Phase, Color Depth, Detail, Copy, Reset		
	Color space	Rec. ITU-R BT.2100 standard compatible (BT.2020 gamut) <sup>4)</sup>		
Movie recording system (XAVC HS 8K)	7680 x 4320 (4:2:0, 10bit, NTSC) (Approx.)	30p (400Mbps / 200Mbps), 24p (400Mbps / 200Mbps)		
	7680 x 4320 (4:2:0, 10bit, PAL) (Approx.)	25p (400Mbps / 200Mbps)		
Movie recording system (XAVC HS 4K)	3840 x 2160 (4:2:0, 10bit, NTSC) (Approx.)	120p (200Mbps), 60p (150Mbps / 75Mbps / 45Mbps), 24p (100Mbps / 50Mbps / 30Mbps)		
	3840 x 2160 (4:2:0, 10bit, PAL) (Approx.)	100p (200Mbps), 50p (150Mbps / 75Mbps / 45Mbps)		
	3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	120p (280Mbps), 60p (200Mbps / 100Mbps), 24p (100Mbps / 50Mbps)		
	3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	100p (280Mbps), 50p (200Mbps / 100Mbps)		
Movie recording system (XAVC S 4K)	3840 x 2160 (4:2:0, 8bit, NTSC) (Approx.)	120p (200Mbps), 60p (150Mbps), 30p (100Mbps / 60Mbps), 24p (100Mbps / 60Mbps)		
	3840 x 2160 (4:2:0, 8bit, PAL) (Approx.)	100p (200Mbps), 50p (150Mbps), 25p (100Mbps / 60Mbps)		
	3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	120p (280Mbps), 60p (200Mbps), 30p (140Mbps), 24p (100Mbps)		
	3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	100p (280Mbps), 50p (200Mbps), 25p (140Mbps)		
Movie recording system (XAVC S HD)	1920 x 1080 (4:2:0, 8bit, NTSC) (Approx.)	120p (100Mbps / 60Mbps), 60p (50Mbps / 25Mbps), 30p (50Mbps / 16Mbps), 24p (50Mbps)		
	1920 x 1080 (4:2:0, 8bit, PAL) (Approx.)	100p (100Mbps / 60Mbps), 50p (50Mbps / 25Mbps), 25p (50Mbps / 16Mbps)		
	1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.)	60p (50Mbps), 30p (50Mbps), 24p (50Mbps)		
	1920 x 1080 (4:2:2, 10bit, PAL) (Approx.)	50p (50Mbps), 25p (50Mbps)		
Movie recording system (XAVC S-14K)	3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.)	60p (600Mbps), 30p (300Mbps), 24p (240Mbps)		
	3840 x 2160 (4:2:2, 10bit, PAL) (Approx.)	50p (500Mbps), 25p (250Mbps)		
Movie recording system (XAVC S-1 HD)	1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.)	60p (222Mbps), 30p (111Mbps), 24p (89Mbps)		
	1920 x 1080 (4:2:2, 10bit, PAL) (Approx.)	50p (185Mbps), 25p (93Mbps)		
Slow & Quick Motion (S&Q)	Image frame rate	NTSC mode: 1fps, 2fps, 4fps, 8fps, 15fps, 30fps, 60fps, 120fps, 240fps <sup>5-6)</sup>		
		PAL mode: 1fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps, 200fps <sup>5-6)</sup>		
Movie function	Audio Level Display, Audio Rec Level, PAL/NTSC Selector, Proxy Recording (1280 x 720 (Approx. 6Mbps), 1920 x 1080 (Approx. 9Mbps), 1920 x 1080 (Approx. 16Mbps)), TC/UB, Auto Slow Shutter, Gamma Disp. Assist, RAW Output (HDMI)			
	Recording system	Location information Link from smartphone	Yes	
	Media	Media	SD memory card, SDHC memory card (UHS-I/II compliant), SDXC memory card (UHS-I/II compliant), CFexpress Type A memory card	
		Memory card slot	SLOT1: Multi slot for SD (UHS-I/II compliant) memory card / CFexpress Type A card SLOT2: Multi slot for SD (UHS-I/II compliant) memory card / CFexpress Type A card	
	Recording mode on 2 memory cards	Simult. Rec, Sort, Auto Switch Media, Copy		
	File system	FAT12, 16, 32, exFAT		
	Noise reduction	Long exposure NR: On/Off, available at shutter speeds longer than 1 sec. High ISO NR: Normal / Low / Off		
	White balance	Modes	Auto / Daylight / Shade / Cloudy / Incandescent / Fluorescent / Flash / Underwater / Color Temperature (2500 to 9900K) & color filter / Custom	
		Shutter AWB Lock	Yes (Shut. Halfway Down / Cont. Shooting / Off)	
	Focus system	Type	Fast Hybrid AF (phase-detection AF / contrast-detection AF)	
		Focus sensor	Exmor RS CMOS sensor	
		Focus point	35mm full frame: 759 points (phase-detection AF), APS-C mode with FF lens: 759 points (phase-detection AF), with APS-C lens: 575 points (phase-detection AF) / 425 points (contrast-detection AF)	
		Sensitivity range	EV-4 to EV20 (ISO100 equivalent with F2.0 lens attached)	
AF mode		AF-S (Single-shot AF), AF-C (Continuous AF), DMF (Direct Manual Focus), Manual Focus		
Focus area		Wide / Zone / Center Fix / Spot / Expanded Spot / Tracking		
Eye AF		[Still images] Human (Right/Left Eye Select) / Animal (Right/Left Eye Select) / Bird, [Movie] Human (Right/Left Eye Select)		
Other features		Predictive control, Focus lock, AF Track Sens. (Still), AF Subj. Shift Sensitivity (Movie), AF Transition Speed (Movie), Switch V/H AF Area, AF Area Regist., Circ. of Focus Point		
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 lens attached)		
Exposure control	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)		
	Modes	Multi-segment, Center-weighted, Spot (Standard / Large), Spot, Entire Screen AVG., Highlight		
	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) / Flexible Exp. Mode), Slow & Quick Motion (Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M) / Flexible Exp. Mode)		
	Exposure compensation	+/- 5.0EV (1/3 EV, 1/2 EV steps selectable) (with exposure compensation dial: +/- 3EV (1/3 EV steps))		
	Bracketing	Bracket: Cont., Bracket: Single, 3/5/9 frames selectable. (Ambient light, Flash light)		
	AE Lock	Locked when shutter button is pressed halfway. Available with AE lock button. (On/Off/Auto)		
	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)		
	Anti-flicker Shoot.	Yes		
Viewfinder	Type	1.6 cm (0.64 type) electronic viewfinder (Quad-XGA OLED)		
	Number of dots	9,437,184 dots		
	Control function	Brightness, Color temperature, Magnifi.		
	Field coverage	100%		
	Magnification	Approx. 0.90x (with 50mm lens at infinity, -1m <sup>-1</sup> )		
	Dioptric adjustment	-4.0 to +3.0m <sup>-1</sup>		
	Eye point	Approx. 25mm from the eyepiece lens, 21mm from the eyepiece frame at -1m <sup>-1</sup> (CIPA standard)		
	Display function	Histogram, Real-time image-adjustment display, Digital level gauge, Grid line, Focus check, Peaking MF, Zebra, Movie marker, Emphasized display during REC		
LCD screen	Finder Frame Rate selection	STD 60fps / HI 120fps / Hi+ 240fps <sup>7)</sup>		
	Type	7.5cm (3.0-type) type TFT		
	Touch panel	Yes		
	Number of dots (total)	1,440,000 dots		
	Brightness control	Manual (5 steps between -2 and +2), Sunny Weather mode		
	Display function	Histogram, Real-time image-adjustment display, Digital level gauge, Grid line, Focus check, Peaking MF, Zebra, Movie marker, For viewfinder, Monitor Off, Emphasized display during REC		
	Adjustable angle	Up by Approx. 107 degrees, Down by Approx. 41 degrees		
Focus Check	Yes, Focus Magnifier (35mm full frame: 4.2x / 8.5x, APS-C: 2.7x / 5.5x)			
Face detection	Face/Eye Priority in AF, Face Priority in Multi Metering, Regist. Faces Priority			
Other features	Interval recording, ISO AUTO Min. SS, Bright Monitoring, Copyright Info, Set File Name, Save/Import, Settings, Help guide, Video Light Mode, Zoom Ring Rotate			
Clear Image Zoom	Still images	Approx. 2x		
	Movies	Approx. 1.5x (4K), Approx. 2x (HD)		

Digital zoom	Smart zoom (Still images)	35mm full frame: M: approx. 1.5x, S: approx. 2x APS-C: S: approx. 1.3x
	Digital zoom (Still images)	35mm full frame: L: approx. 4x, M: approx. 6.2x, S: approx. 8x APS-C: M: approx. 4x, S: approx. 5.2x
	Digital zoom (Movie)	35mm full frame: approx. 4x APS-C: approx. 4x
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: 1/32000 to 1/2 sec, Electronic Shutter: 1/32000 to 1/2 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>9</sup>	[Mechanical shutter], [Flash Sync. Priority] is [ON] or [AUTO]: 1/400 sec (35mm full frame), 1/500 sec (APS-C), [Flash Sync. Priority] is [OFF]: 1/320 sec (35mm full frame), 1/400 sec (APS-C), [Electrical shutter], 1/200 sec (35mm full frame), 1/250 sec (APS-C)
	Electronic Front Shutter Curtain	Yes
SteadyShot INSIDE (image stabilization)	Silent Shooting	Yes (ON/OFF)
	Type	Image Sensor-Shift mechanism with 5-axis compensation (Compensation depends on lens specifications)
	Compensation effect (Still images)	5.5 stops (based on CIPA standard. Pitch/yaw shake only. With Planar T* FE 50mm F1.4 ZA lens mounted. Long exposure NR off.)
Flash	Mode	[Still images] On / Off, [Movie] Active / Standard / Off
	Control	Pre-flash TTL
	Flash compensation	+/- 3.0 EV (switchable between 1/3 and 1/2 EV steps)
	Flash modes	Flash off, Autoflash, Fill-flash, Slow Sync., Rear Sync., Red-eye reduction (on/off selectable), Wireless <sup>9</sup> , Hi-speed sync. <sup>9</sup>
	External flash	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: Available with Fill-flash, Slow Sync., Hi-speed sync. / Radio signal: Available with Fill-flash, Rear Sync., Slow Sync., Hi-speed sync.)
Drive	Drive modes	Single Shooting, Continuous shooting (Hi-/Hi-/Mid/Lo selectable), Self-timer, Self-timer (Cont.), Bracket: Single, Bracket: Cont., White Balance bracket, DRO bracket
	Self-timer	10 sec. delay / 5 sec. delay / 2 sec. delay / Continuous self-time / Bracketing self-timer
	Pixel Shift Multi Shooting	Yes (4 shots / 16 shots) <sup>10</sup>
	Speed (approx., max.) <sup>11</sup>	AUTO/Electronic Shutter: Continuous shooting: Hi+: 30 fps, Hi: 20 fps, Mid: 15fps, Lo: 5 fps, <sup>12-13-14-15</sup> Mechanical Shutter: Continuous shooting: Hi+: 10 fps, Hi: 8 fps, Mid: 6fps, Lo: 3 fps
	No. of frame recordable* (approx.) <sup>11</sup>	JPEG Extra fine L: 182 frames, JPEG Fine L: 400 frames, JPEG Standard L: 400 frames, RAW: 238 frames, RAW & JPG: 192 frames, RAW (Lossless Compressed): 96 frames, RAW (Lossless Compressed) & JPG: 83 frames, RAW (Uncompressed): 82 frames, RAW (Uncompressed) & JPG: 78 frames
Playback	Modes	Single (with or without shooting information Y RGB histogram & highlight / shadow warning), Index view, Enlarged display mode (L: 21.6x, M: 14.0x, S: 10.8x), Auto Review, Image orientation, Folder selection (Date / Still / Movie), Protect, Rating, Display as Group
	Photo Capture	Yes
Interface	PC interface	Mass-storage / MTP
	Multi / Micro USB Terminal <sup>16</sup>	Yes

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

- \*1 When [HLG Still Image] setting is set to [On].  
\*2 When using accessories that support 4ch output / 24 bits with the Multi Interface Shoe.  
\*3 Proxy movies  
\*4 When [Gamma] is set to [HLG] and [Color Mode] is set to [BT.2020] in [Picture Profile].  
\*5 Number of effective pixels: 1420 x 804 at 240 or 200 fps. 240 or 200 fps not available when using [XAVC HS 4K], [XAVC S 4K], or [XAVC S-I 4K] file formats.  
\*6 When [Movie recording system] is [XAVC HS 8K], S&Q is not available.  
\*7 When [Finder Frame Rate] is set to [Hi-], [Standard] is not available in [Viewfinder Magnification].  
\*8 With compatible Sony external flash  
\*9 With compatible external flash  
\*10 Images shot in Pixel Shift Multi Shooting mode can be processed using a dedicated imaging software by Sony.  
\*11 Varies according to shooting conditions or memory card used  
\*12 When A-mount lens is used via mount adaptor, the speed of continuous shooting varies depending on the attached lens.  
\*13 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.  
\*14 Continuous Drive Speed at a setting of Hi/Mid/Lo is selectable.  
\*15 During uncompressed RAW shooting, 20 images are shot per second at maximum.  
\*16 Supports Micro USB compatible device.  
\*17 (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)  
\*18 Models sold in some countries/regions support IEEE 802.11b/g/n (2.4GHz) wireless LAN only.  
\*19 Sony accessories for the Accessory Shoe can be attached.  
\*20 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.  
\*21 Indication recording time, which is defined by repeating the cycle: Power on, start recording, zoom, stand-by and power off.

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Interface	USB Type-C <sup>9</sup> Terminal	Yes (SuperSpeed USB 10Gbps (USB 3.2) compatible)
	NFC	Yes (NFC forum Type 3 Tag compatible)
	Sync. Terminal	Yes
	Wireless LAN(built-in)	Yes (Wi-Fi Compatible, IEEE 802.11a/b/g/n/ac (2.4GHz band/5GHz band)) <sup>17-18</sup>
	Bluetooth	Yes (Bluetooth Standard Ver. 5.0 (2.4GHz band))
	HDMI connector	HDMI connector (Type-A), 3840 x 2160 (60p / 50p / 30p / 25p / 24p) / 1920 x 1080 (60p / 50p / 24p) / 1920 x 1080 (60i / 50i), YCbCr 4:2:2 10bit / RGB 8bit 7860 x 4320 (30p / 24p / 25p), YCbCr 4:2:0 8bit, 4332 x 2446 (60p / 50p / 30p / 25p / 24p), Raw 16bit
	Multi Interface Shoe <sup>19</sup>	Yes (with Digital Audio Interface)
	Mic Terminal	Yes (3.5 mm Stereo minijack)
	Headphone Terminal	Yes (3.5 mm Stereo minijack)
	Remote Control (Wireless)	Yes (IR remote control / Bluetooth remote control)
	Vertical Grip Connector	Yes
	LAN terminal	Yes (1000BASE-T, 100BASE-TX, 10BASE-T)
	Functions	FTP Transfer Func. (Wired LAN, USB Tethering, Wi-Fi), View on Smartphone, Remote control via Smartphone, NFC One-touch remote, PC Remote, BRAVIA Sync (Control for HDMI), PhotoTV HD, NFC One-touch sharing
Audio	Microphone	Built-in, stereo
	Speaker	Built-in, monaural
Print	Compatible standards	Exif Print, Print Image Matching III
Custom function	Custom key settings	Yes
	My Menu	Yes
	My Dial Settings	Yes
	Reg Cust Shoot Set	Yes
	Programmable Setting	Yes (Body 3 sets / memory card 4 sets)
Lens compensation	Lens compensation	Peripheral Shading, Chromatic Aberration, Distortion
	Power	Battery
Power	Still images <sup>20</sup>	Approx. 430 shots (Viewfinder) / approx. 530 shots (LCD monitor) (CIPA standard)
	Movies (actual recording) <sup>21</sup>	Approx. 90 min. (Viewfinder) / Approx. 95 min. (LCD monitor), (CIPA standard)
	Movies (continuous recording)	Approx. 145 min. (Viewfinder) / Approx. 150 min. (LCD monitor), (CIPA standard)
	Internal battery charge	Yes (Available with USB Type-C Terminal. USB Power Delivery compatible)
	USB power supply	Yes (Available with USB Type-C Terminal. USB Power Delivery compatible)
Power consumption	With Viewfinder	Still images: approx. 4.6W (with FE 28-70mm F3.5-5.6 OSS lens attached), Movies: approx. 6.8W (with FE 28-70mm F3.5-5.6 OSS lens attached)
	With LCD screen	Still images: approx. 3.7W (with FE 28-70mm F3.5-5.6 OSS lens attached), Movies: approx. 6.6W (with FE 28-70mm F3.5-5.6 OSS lens attached)
Weight	With battery and memory card included	Approx. 737 g
	oz. With battery and memory card included	Approx. 1 lb 10.0 oz
	Body only	Approx. 652 g
Dimensions	oz Body only	Approx. 1 lb 7.0 oz
	DIMENSIONS (W x H x D)	Approx. 128.9mm x 96.9mm x 80.8mm, Approx. 128.9mm x 96.9mm x 69.7mm (FROM GRIP TO MONITOR)
Operating Temperature	inches. DIMENSIONS (W x H x D)	Approx. 5 1/8 x 3 7/8 x 3 1/4 inches, Approx. 5 1/8 x 3 7/8 x 2 3/4 inches (FROM GRIP TO MONITOR)
	Operating temperature	32 - 104 degrees F / 0 - 40 degrees C
What's in the box	Supplied Accessory	Rechargeable Battery NP-FZ100, Battery Charger BC-QZ1, Power cord, Cable Protector, Shoulder strap, Body cap, Accessory shoe cap, Eyepiece cup, USB-A to USB-C cable (USB 3.2)

**SONY**