ILCE7M4MB

Alpha 7 IV - Full-frame Mirrorless Interchangeable Lens Camera with SEL28702 Kit

Prepare to be inspired. The α7 IV's true-to-life resolution and remarkable AI-powered autofocus complement a range of world-class features at the cutting edge of imaging technology. Go beyond basic with 33-Megapixel full-frame sensor for outstanding still image and 4K movie quality

Bullets

- Check Camera to Lens Compatibility
- Check Accessory Compatibility
- 33MP[1] full-frame Exmor R™ back-illuminated CMOS sensor
- 8x more powerful[2], next generation BIONZ XR™ image processing engine
- Up to 4K 60p[11] 10-bit 4:2:2 w/ full pixel readout in all rec. formats
- 7K oversampling full-frame 4K[11] 30p 10-bit 4:2:2 w/ no pixel binning
- Real-time Eye-AF for humans, animals, birds for photo and movie
- S-Cinetone, S-Log[3], HLG and 10 Creative Look presets in-camera
- Advanced movie features; Focus Map[16], Breathing Comp[14]., AF Assist[17]
- UVC/UAC live streaming up to 4K 15p/1080 60p w/ internal recording
- Low noise images w/ ISO up to 204800 and 15+stop dynamic range[3]
- 5-axis in-body image stabilization and Active Mode[18] for handheld movie

Features

33MP high-resolution full-frame sensor

The full-frame 33MP[1] Exmor R™ back-illuminated CMOS sensor delivers outstanding speed and superb image quality. The use of copper wiring contributes to higher transmission speeds and faster AD (analogue to digital) conversion, while fast sensor readout enables 10-bit 4:2:2 4K recording up to 60p[11]. The sensor also provides improved color reproducibility, low-noise performance at all sensitivities, 15+stop[3] dynamic range and increased AF (autofocus) speed and precision performance. Experience improved levels of color gradation and detail rendering as well as soft, natural-looking human skin textures.

BIONZ XR™ image processor for up to 8x[2] processing speed

The BIONZ XR engine, also used in the Sony Alpha 1 and Alpha 7S III models, provides up to an 8x[2] increase in processing speed. The engine concentrates real-time processing of AF (autofocus), image recognition and image quality adjustment to minimize processing latency for greatly increased movie and still processing power. User interface, network and file management processing is distributed to deliver fast response regardless of real-time processing load.

Beautiful images with reduced noise

Building on the capabilities of the back-illuminated Exmor R™ image sensor, the powerful BIONZ XR™ processing engine reveals even higher subjective resolution combined with exquisite detail and texture even in medium and high sensitivity ranges. Impressively low levels of noise are achieved throughout the standard range of ISO 100-51200 (expandable to ISO 50-204800 for stills and ISO 100-102400 for movies).

Wide, 15-stop[3] dynamic range

Taking advantage of the camera's full dynamic range of 15 stops[3], the Alpha7 IV uses image data from the sensor's 33-megapixels[1] to render remarkably delicate detail in landscapes and scenery. This stunning image quality is based on Sony's unrivalled experience at the front lines of both still-image and movie creation.

4K 60p[11] recording, 4:2:2 10-bit recording

The Alpha 7 IV gives you an impressive range of video recording options. Full pixel readout without binning allows 4K 60p[11] recording in Super 35 mode providing high-resolution smooth footage that can be edited to 2x and 2.5x slow-motion when rendered to 30p or 24p in post-production, and 4K 24p or 30p full pixel readout without binning in full-frame with 7K[11] oversampling. For highly detailed and rich 4K content.

7K oversampling for beautifully expressive, richly detailed images

Thanks to the increased2 33MP[1] resolution, the Alpha 7 IV oversamples 7K[11] when recording full-frame 4K[11] movies at up to 30p, resulting in high-resolution, highly detailed 4K[11] for beautifully expressive, rich images. Select the mode that best suits your purpose, and let the camera deliver.

Beautiful color expression made simple, with S-Cinetone™

The Alpha 7 IV supports S-Cinetone, based on expertise gained through development of the VENICE CineAlta professional cinema camera line. This look is responsible for the beautiful skin tones for which Cinema Line cameras like the FX9, FX6 and FX3 are widely acclaimed. It delivers natural mid-tones for healthy-looking skin color, plus soft colors and gorgeous highlights. It's easy to create a more expressive look for your movie imagery without post-editing, since S-Cinetone is processed in-camera.

Breathing Compensation[14] for consistent angle of view when focusing

For the first time in the Sony Alpha series, the Alpha 7 IV provides compensation for focus breathing[14]. Focus breathing is any change in a lens's angle of view that corresponds to changes in focus. Sony's original Clear Image Zoom technology is used to automatically maintain a consistent angle of view for more movie-like focus transitions. This feature can be used in conjunction with Active Mode image stabilization to shoot stable, consistent imagery.

Visualize depth of field with Focus Map[16]

Answering requests from professional creators, the brand-new Focus Map[16] feature lets you easily visualize depth of field (DOF) and which areas are in and out of focus when you're in movie mode. In use, focus information (depth map) is overlaid on the display of the live view in real time. Areas in focus and within the set DOF appear translucent, while areas out of focus behind the DOF appear blue and those in front of the DOF appear red. Focus Map can be used in autofocus and manual focus modes and greatly enhances the ability to check focus and map depth of field.

AF Assist[17] for seamless transitions between AF and manual focus

The AF Assist[17] function, inherited from the Cinema Line FX6, lets you seamlessly switch to and from autofocus and manual focus during movie shoots. When this feature is turned on, rotating the focus ring temporarily switches operation from autofocus to manual focus to allow you to deliberately shift your focus to a different subject. Autofocus is resumed when ring rotation stops.

Fast Hybrid AF with improved speed, precision and tracking

The Fast Hybrid AF system, combining 759 phase-detection AF points[6] and 425 contrast-detection AF points with a wide coverage of roughly 94% of the image area for both stills and movies, has evolved even further to achieve greater speed, accuracy and tracking performance. This vast collection of data is analyzed in real time by the latest powerful BIONX XR™ processing engine to achieve the AF system's impressive results.

Sony's smart AI-based Real-time Tracking[9]

The superior power of the BIONZ XR™ processing engine has led to improvements in both Real-time Eye AF and Real-time Tracking9 features. Improved face detection translates into 30% better eye-detection accuracy compared to Alpha 7 III. AI (Artificial Intelligence) is used to detect and track the eyes and face of the subject (human, animal or bird)[10] with extremely high precision. Real-time Tracking allows you to select your subject and then leave tracking to the camera, relying on the latest subject recognition algorithm and high-speed analysis of spatial data by the processing engine.

Improved Real-time Eye AF

Keeping the targeted eye in focus so you can concentrate on composition. The high speed of the latest image BIONZ XR™ processing engine provides a significant boost to Real-time Eye AF performance, even when the subject is looking up, down, or sideways. It is also possible to use Touch Tracking[9] to initiate Real-time Tracking of any subject in the frame, simultaneously initiating Real-time Eye AF if an eye is detected, simply by touching the screen.

Pet photos made easy

Fast, accurate focus for difficult animal shots[10]. By setting the camera's subject detection type to "Animal" in advance, you can automatically detect and track[9] an animal's eyes, for greater success in both wildlife shots and photos and movies of your pets at home. Animal-eye detection has been improved with reliable tracking and accurate focus even when the animal's face is upside down.

Real-time Eye AF for birds[10] for stills and movie

The Real-time Eye AF function is now capable of detecting the eyes of birds[10] and tracking them in real time, for both still shots and movies. The BIONZ XR™ processing engine runs optimized AF and tracking algorithms to ensure uninterrupted tracking[10] even for birds in flight, whose movement is hard to predict. Once you've selected a bird, the camera will automatically detect and precisely track that bird's eye, whether the bird is perched or in flight.

10-frame-per-second[7] continuous shooting with massive buffer

Both the mechanical and electronic shutters allow continuous shooting of 33MP[1] RAW+JPEG still images at up to 10 fps[7] with AF/AE tracking. The powerful BIONZ XR™ processing engine and increased buffer memory allow faster writing to memory cards, so you can shoot more than 1000 compressed RAW+JPEG frames (more than 2000 altogether, up to a full memory card)[8]. Its even possible to capture over 800 uncompressed RAW+JPEG frames[8] (more than 1600 altogether) in Hi+ mode[7]. Increased processing power also allows you to change menu settings even while data is being written to the memory card.

Instantly turn your Alpha 7 IV into a live streaming web camera

All it takes is a USB[22] connection to turn the full-frame Alpha 7 IV into a high-performance webcam. There's no need for complicated advance setup; just connect the camera to a computer or smartphone via USB[27], select "Live Stream (USB Streaming)", and you're set. You can choose from four different output formats[28], including high-resolution 4K video and simultaneous internal recording is also available, giving you broad flexibility to cover a wide variety of needs.

Next-level image quality with 10-bit 4:2:2 recording

Make in-camera recordings with the amazing richness of 4K 10-bit depth and 4:2:2 color sampling, with either Long GOP H.264 (XAVC S), Long GOP H.265 (XAVC HS[13]) or All-Intra (XAVC S-I) frame encoding, for far greater flexibility in image grading, post-processing, and compositing.

All-Intra encoding

All-Intra (XAVC S-I) recording encodes every frame independently at bitrates of up to 600Mbps[12], capturing complex motion more accurately and allowing more efficient editing workflows.

Superior quality and smaller file sizes with XAVC HS[13]

The XAVC HS[13] recording format uses HEVC/H.265 encoding to achieve twice the compression efficiency of AVC/H.264 encoding for superior image quality and smaller space-saving file sizes.

S-Log for color matching with professional video equipment

The Alpha 7 IV provides S-Log2 and S-Log3 gamma curves, with the latter allowing capture of 15+ stops3 of dynamic range. The S-Gamut3 and S-Gamut3.Cine color gamut settings make it easy to match Alpha 7 IV footage with footage from VENICE digital cinema cameras or Cinema Line cameras like the FX6 and FX3. The native sensitivity when shooting S-Log is ISO 800 and can be lowered by as much as two stops (ISO 200-640) below the standard range to achieve extra low noise.

Quickly set the visual mood with ten Creative Look presets

Broaden your creative palette with a selection of ten Creative Look presets with eight adjustable parameters. You can easily impart a particular mood in your still images, movies and live streaming. All preset selections are available in-camera without post-editing, so you can share your vision immediately after shooting.

5-axis optical image stabilization

The Alpha 7 IV's in-body image stabilization allows effective use with a wide range of lenses. The high-precision stabilization unit and gyro sensors work with stabilization algorithms to achieve up to 5.5 steps[4] of shutter-speed compensation to maximize the performance of the camera's 33MP[1] sensor. The live monitor view shows the stabilized still image while the shutter button is half-pressed, an especially helpful feature when using a telephoto or macro lens, and it can be used in conjunction with the MF (manual focus) Assist and Focus Magnifier features.

Hand-held movie shooting with Active Mode

Active Mode[30] uses the camera's stabilization unit, gyro sensors and sophisticated algorithms for highly effective in-camera optical image stabilization during movie shoots. The powerful processing engine precisely detects the required amount of compensation for smooth stabilization in all formats, including 4K, without compromising the Alpha 7 IV's compact size and mobility. And, because the gyro data is also recorded alongside the video, even more effective post-production stabilization can be applied for ultra-smooth shots using Catalyst Browse/Prepare software[19].

Beautiful imagery with better image stabilization

Since the Alpha7 IV records gyro and lens data as metadata, you can use Catalyst Browse/Prepare software[19] to further smooth camera shake and make adjustments to image stabilization even after shooting

Smoother gradation rendering with 10-bit HEIF[26] recording

The Alpha 7 IV offers HEIF (High Efficiency Image File)[26] still-image encoding in addition to 14-bit RAW and conventional 8-bit JPEG. 10-bit color depth minimizes degradation of image quality when editing, providing smooth gradations and more realistic reproduction of skies and portrait subjects where subtle, natural gradation is essential. HEIF still images recorded in HLG mode

can be played back on a compatible BRAVIA 4K TV, via an HDMI connection, to display images with an extraordinarily wide dynamic range.

Sony's flash units coordinate with the camera's face-detection system

Sony's latest flash units communicate fully with the Alpha 7 IV, leveraging its powerful face detection capabilities to adjust exposure to produce natural-looking skin tones[31]. Precise white balance synchronization and P-TTL metering, at up to the 'Hi' level of continuous-burst speeds, reliably expose even fast-moving subjects with quick lighting changes for unmatched dependability and creative possibilities. Additionally, compatible flash and radio wireless commander units connected to the Alpha 7 IV can now be controlled directly from the camera interface for greater convenience during shoots.

Multiple audio input options

The Alpha 7 IV provides multiple audio input options for the movie creator. A digital Multi Interface (MI) Shoe enables cable-less connection for high-quality sound[15], while also supplying power, eliminating concerns about mic batteries. A digital signal from a compatible digital MI shoe microphone provides higher quality audio without degradation, directly transferring the digital audio signal[15] to the camera. A 3.5mm mic input jack is also provided for non-MI shoe microphones. When wind-noise reduction[18], is set to "Auto" and wind noise is detected, the integrated microphone uses newly developed signal-processing technology to greatly reduced wind noise without affecting other sounds.

Improvements in selection and editing workflow

The Alpha 7 IV incorporates a number of individual improvements to image selection and editing, adding up to smoother overall workflow that allows large amounts of data to be efficiently managed. Still-image Divider Frames[20] can be inserted between images[21] in order to quickly locate desired scenes; a black background with a grey arrow indicates a new scene or section. Two types of shot marks, used as "essence marks" or flags, can be easily added to recorded movie footage to mark favorite takes or scenes, and the main dial can be used to quickly navigate from one mark to the next during playback. Files can be selected to be transferred according to criteria such as rating, shot marks, protection status or file format. Single files can be transferred manually with a custom button.

Communication features for easy sharing and distribution

The Alpha 7 IV is equipped with robust wired and wireless communication features for more comfortable sharing and distribution. In-body wireless LAN uses a 5GHz[22] band in addition to the 2.4GHz band (IEEE 802.11 a/b/g/n/ac standards are supported), for fast data transfer. Background FTP transfer of files can be set to occur automatically while shooting continues, and a USB Type-C® connector supports fast SuperSpeed USB 10Gbps (USB 3.2 Gen 2) data transfer.

Still/Movie/S&Q dial for quick access to hybrid capabilities

Befitting its status as a true hybrid camera, the Alpha 7 IV comes equipped with a dedicated Still/Movie/S&Q dial to instantly switch between movies and stills. The dial switches the menus, functions, and custom settings of various controls between still and movie mode, and settings such as aperture and shutter speed can also be maintained separately for stills and movies. S&Q mode can be selected for fast access to slow-motion or quick-motion shooting.

3.68 mega-dot[1] high-definition Quad-VGA OLED viewfinder

The Alpha 7 IV features a 3.68 mega-dot[1] high-definition Quad-VGA OLED viewfinder, providing roughly 1.6 times the resolution of the Alpha 7 III viewfinder, with a 37.3° field of view and a 23mm high eyepoint. With high resolution, improved electronic viewfinder image quality, fogging and dust resistance (including significantly improved internal fogging resistance relative to the Alpha 7 III), it is designed for clear and comfortable viewing in a wide range of shooting environments.

Vari-angle touch LCD monitor for greater freedom when shooting

The large, side-opening 3-inch 1.03-mega-dot[1] touch-panel LCD monitor offers ample brightness for clear viewing in outdoor settings and its 3:2 aspect ratio makes efficient use of the display area. The vari-angle mechanism allows flexible positioning and framing for handheld shots, gimbal-mounted or documentary-style self-shooting, or very low ground-level shots. In addition, the touch functionality allows for fast and easy menu access in addition to advanced touch focus features for both still and movie.

AF control through touch operation

Touch operation[23] is now possible for AF operations such as Touch Tracking during shooting. Along with pinch-to-zoom during playback, this translates into more intuitive operation. Touch Tracking lets you select a subject to track simply by touching the LCD screen, even while using the viewfinder, for more intuitive AF control for both still shots and movies. Easier focus operation is particularly helpful when you're shooting movies alone or using a gimbal, allowing you to concentrate on composing your shots.

The latest mode-specific menus and customization

The Alpha 7 IV's menus are specific to either stills or movies, and for easier navigation menus are configured to show three levels of hierarchy at once. Separate functions for stills and for movies can be assigned to various buttons and dials, including the new, freely customizable rear dial R, which replaces the previous exposure compensation dial, giving you quick access to features such as ISO control, Creative Look or other settings. With controls tailored to whichever shooting mode you are currently using,

the flexible access provided by the Rear dial R contributes to greatly enhanced still and movie shooting efficiency.

Dual media slots

Dual media slots allow you to continue shooting even if one memory card fills up. Both slots support UHS-I and UHS-II SDXC/SDHC cards and one of the slots supports high-performance CFexpress Type A cards. With their fast write speeds, CFexpress Type A cards are particularly suited to high-resolution, high-speed continuous still shooting as well as high-resolution, high-bitrate 4K movie recording.

Heat management

To allow extended continuous recording, efficient heat dissipation is provided by Sony's proprietary Σ (sigma)-shaped thermal mounting. The mounting, which is also used on flagship models, is constructed from a graphite material with excellent thermal conduction properties. This structure allows the image sensor, a major source of heat inside the camera body, to move freely during image stabilization while heat is efficiently dissipated.

Reliable, robust engineering

The Alpha 7 IV has improved dust and moisture resistance[5] to provide outstanding reliability even in challenging outdoor shooting environments. Design refinements include more sealing at body seams and the battery compartment cover[2], a redesigned lens lock button, and extra cushioning around the mount. A lightweight, high-rigidity magnesium alloy used for the camera's top cover, front cover, and internal frame provides excellent durability.

High-capacity Z batteries and USB Power Delivery[24]

The Alpha 7 IV uses a high-capacity Z battery (NP-FZ100), along with optional external power options that include USB power supplies[24] and AC adaptors. Battery drain can be minimized by adding a high-capacity mobile battery for extended shooting. A USB charger or mobile battery that supports USB PD25 can be connected to the camera's USB Type-C® port, for extended recording.

Soft Skin Effect for bright and beautiful skin appearance

The Alpha 7 IV's built-in Soft Skin Effect is available in four level settings (OFF, LO, MID, and HI). It makes skin look bright and beautiful, softening wrinkles, blemishes and dull-looking areas while adding emphasis to the eyes and mouth. Complementing the capabilities of the full-frame sensor, this feature can add appeal to live-streamed sessions as well as enhancing still shots and movies.

Imaging Edge Desktop™ / Imaging Edge Mobile™[26]

Expand your creative horizons with Imaging Edge Desktop and Imaging Edge Mobile26. The Imaging Edge Desktop PC application lets you control and monitor shoots directly from your PC screen, preview photos, and develop RAW/HEIF data into high-quality photos for delivery. Imaging Edge Mobile applications use the Wi-Fi and Bluetooth® functionality of the Alpha 7 IV to provide a wide variety of convenient shooting and sharing functions. Quickly configure camera Wi-Fi settings using the low-power Bluetooth® connection and enjoy greater control over automatic image transfers.
Learn more about Imaging Edge Desktop and Mobile applications:
https://imagingedge.sony.net

Consideration for the environment and resource conservation

Inspired by the beauty of the world, Sony is doing its part to help preserve the Earth. Sony's "Road to Zero" environmental plan was launched in 2010 with the ultimate goal of achieving a zero environmental footprint. Currently nearly all plastic packaging materials for the Alpha 7 IV are recycled. Recyclable materials are also used for camera bodies whenever possible, reducing environmental burden without compromising functionality. While retaining state-of-the-art performance, we aim to further reduce energy and resource consumption to reduce the burden on the environment.
Learn more about Road to Zero: https://www.sony.net/SonyInfo/csr/eco/RoadToZero/gm_en.html

Specification

Lens	
LENS MOUNT	E-mount
Image Sensor	
ASPECT RATIO	3:2
NUMBER OF PIXELS (EFFECTIVE)	Approx. 33.0 megapixels
NUMBER OF PIXELS (TOTAL)	Approx. 34.1 megapixels
SENSOR TYPE	35 mm full frame (35.9 x 23.9 mm), Exmor R CMOS sensor

ANTI-DUST SYSTEM	Yes (Charge protection coating on optical filter and image sensor shift mechanism)
Recording (still images)	
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]	35 mm full frame L : 7008 x 4672 (33 M), M : 4608 x 3072 (15 M), S : 3504 x 2336 (8.2 M), APS-C M : 4608 x 3072 (15 M), S : 3504 x 2336 (8.2 M)
IMAGE SIZE (PIXELS) [4:3]	35 mm full frame L : 6224 x 4672 (29 M), M : 4096 x 3072 (13 M), S : 3120 x 2336 (7.3 M), APS-C M : 4096 x 3072 (13 M), S : 3120 x 2336 (7.3 M)
IMAGE SIZE (PIXELS) [16:9]	35 mm full frame L : 7008 x 3944 (28 M), M : 4608 x 2592 (12 M), S : 3504 x 1968 (6.9 M), APS-C M : 4608 x 2592 (12 M), S : 3504 x 1968 (6.9 M)
IMAGE SIZE (PIXELS) [1:1]	35 mm full frame L : 4672 x 4672 (22 M), M : 3072 x 3072 (9.4 M), S : 2336 x 2336 (5.5 M), APS-C M : 3072 x 3072 (9.4 M), S : 2336 x 2336 (5.5 M)
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
PICTURE EFFECT	-
CREATIVE STYLE	-
PICTURE PROFILE	Yes (Off / PP1-PP11) 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
CREATIVE LOOK	ST, PT, NT, VV, VV2, FL, IN, SH, BW, SE, Custom Look (1-6)
SOFT SKIN EFFECT	Yes
DYNAMIC RANGE FUNCTIONS	Off, Dynamic Range Optimizer
COLOUR SPACE	sRGB standard (with sYCC gamut), Adobe RGB standard and Rec. ITU-R BT.2100 standard (BT.2020 gamut).[1]
14BIT RAW	Yes
Recording (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 2 ch (48 kHz 16 bit), LPCM 2 ch (48 kHz 24 bit)[2], LPCM 4 ch (48 kHz 24 bit)2, MPEG-4 AAC-LC 2 ch[3]
COLOUR SPACE	Rec. ITU-R BT.2100 standard compatible (BT.2020 gamut)[4]
CREATIVE STYLE	-
SOFT SKIN EFFECT	Yes
PICTURE PROFILE	Yes (Off / PP1-PP11) 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
CREATIVE LOOK	ST, PT, NT, VV, VV2, FL, IN, SH, BW, SE, Custom Look (1-6)
MOVIE RECORDING SYSTEM (XAVC HS 4K)	3840 x 2160 (4:2:0, 10bit, NTSC) (Approx.): 60p (150 Mbps / 75 Mbps / 45 Mbps)[5] [6], 24p (100 Mbps / 50 Mbps / 30 Mbps)[6], 3840 x 2160 (4:2:0, 10bit, PAL) (Approx.): 50p (150 Mbps / 75 Mbps / 45 Mbps)[5], 3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.): 60p (200 Mbps / 100 Mbps)56, 24p (100 Mbps / 50 Mbps)[6], 3840 x 2160 (4:2:2, 10bit, PAL) (Approx.): 50p (200 Mbps / 100 Mbps)[5]
MOVIE RECORDING SYSTEM (XAVC S-I 4K)	3840 x 2160 (4:2:0, 8bit, NTSC) (Approx.): 60p (150 Mbps)[56], 30p (100 Mbps / 60 Mbps)[6], 24p (100 Mbps / 60 Mbps)[6], 3840 x 2160 (4:2:0, 8bit, PAL) (Approx.): 50p (150 Mbps)[5], 25p (100 Mbps / 60 Mbps), 3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.): 60p (200 Mbps)[56], 30p (140 Mbps)6, 24p (100 Mbps)[6], 3840 x 2160 (4:2:2, 10bit, PAL) (Approx.): 50p (200 Mbps)[5], 25p (140 Mbps)

MOVIE RECORDING SYSTEM (XAVC S-I HD)	1920 x 1080 (4:2:0, 8bit, NTSC) (Approx.): 120p (100 Mbps / 60 Mbps)[76], 60p (50 Mbps / 25 Mbps)[6], 30p (50 Mbps / 16 Mbps)[6], 24p (50 Mbps)[6], 1920 x 1080 (4:2:0, 8bit, PAL) (Approx.): 100p (100 Mbps / 60 Mbps), 50p (50 Mbps / 25 Mbps), 25p (50 Mbps / 16 Mbps), 1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.): 60p (50 Mbps)[6], 30p (50 Mbps)6, 24p (50 Mbps)61920 x 1080 (4:2:0, 8bit, NTSC) (Approx.): 120p (100 Mbps / 60 Mbps)[76], 60p (50 Mbps / 25 Mbps)[6], 30p (50 Mbps / 16 Mbps)6, 24p (50 Mbps)[6], 1920 x 1080 (4:2:0, 8bit, PAL) (Approx.): 100p (100 Mbps / 60 Mbps), 50p (50 Mbps / 25 Mbps), 25p (50 Mbps / 16 Mbps), 1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.): 60p (50 Mbps)[6], 30p (50 Mbps)[6], 24p (50 Mbps)[6], 1920 x 1080 (4:2:2, 10bit, PAL) (Approx.): 50p (50 Mbps), 25p (50 Mbps), 1920 x 1080 (4:2:2, 10bit, PAL) (Approx.): 50p (50 Mbps), 25p (50 Mbps)
MOVIE RECORDING SYSTEM (XAVC S-I 4K)	3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.): 60p (600 Mbps)[56], 30p (300 Mbps)[6], 24p (240 Mbps)3840 x 2160 (4:2:2, 10bit, NTSC) (Approx.): 60p (600 Mbps)[56], 30p (300 Mbps)[6], 24p (240 Mbps)[6], 3840 x 2160 (4:2:2, 10bit, PAL) (Approx.): 50p (500 Mbps)[5], 25p (250 Mbps) [6], 3840 x 2160 (4:2:2, 10bit, PAL) (Approx.): 50p (500 Mbps)[5], 25p (250 Mbps)
MOVIE RECORDING SYSTEM (XAVC S-I HD)	1920 x 1080 (4:2:2, 10bit, NTSC) (Approx.): 60p (222 Mbps)[6], 30p (111 Mbps)[6], 24p (89 Mbps)[6], 1920 x 1080 (4:2:2, 10bit, PAL) (Approx.): 50p (185 Mbps), 25p (93 Mbps)
SLOW & QUICK MOTION (SHOOTING FRAME RATE)	NTSC mode: 1 fps, 2 fps, 4 fps, 8 fps, 15 fps, 30 fps, 60 fps, 120 fps[8,7], PAL mode: 1 fps, 2fps, 3fps, 6fps, 12fps, 25fps, 50fps, 100fps[8,7]
MOVIE FUNCTIONS	Audio Level Display, Audio Rec Level, PAL/NTSC Selector, Proxy Recording (1280 x 720 (Approx. 6 Mbps), 1920 x 1080 (Approx. 9 Mbps), 1920 x 1080 (Approx. 16 Mbps)), TC/UB, Auto Slow Shutter, Gamma Disp. Assist
USB Streaming	
VIDEO DATA FORMAT	MJPEG, YUV420[9]
VIDEO RESOLUTION	3840 x 2160 (15p / 12.5p) / 1920 x 1080 (60p / 50p / 30p / 25p) / 1280 x 720 (30p / 25p)
AUDIO DATA FORMAT	LPCM 2 ch (16 bit 48 kHz)
SIMULTANEOUS INTERNAL RECORDING	Yes
Recording System	
LOCATION INFORMATION LINK FROM SMARTPHONE	Yes
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: Slot for SD (UHS-I/II compliant) memory card
RECORDING MODE ON 2 MEMORY CARDS	Simult. Rec, Sort, Auto Switch Media, Copy
Noise Reduction	
NOISE REDUCTION	Long exposure NR: On/Off, available at shutter speeds longer than 1 s, High ISO NR: Normal / Low / Off
White Balance	
WHITE BALANCE MODES	Auto / Daylight / Shade / Cloudy / Incandescent / Fluorescent / Flash / Underwater / Color Temperature (2500 to 9900 K) & color filter / Custom
SHUTTER AWB LOCK	Yes (Shut. Halfway Down / Cont. Shooting / Off)
Focus	
FOCUS TYPE	Fast Hybrid AF (phase-detection AF / contrast-detection AF)
FOCUS SENSOR	Exmor R CMOS sensor
FOCUS POINT	35 mm full frame: 759 points (phase-detection AF), APS-C mode with FF lens: 713 points (phase-detection AF), with APS-C lens: 575 points (phase-detection AF) / 425 points (contrast-detection AF)

FOCUS SENSITIVITY RANGE	EV-4 to EV20 (ISO100 equivalent with F2.0 lens attached)
FOCUS MODE	AF-A (Automatic AF), AF-S (Single-shot AF), AF-C (Continuous AF), DMF (Direct Manual Focus), Manual Focus
FOCUS AREA	Wide / Zone / Center Fix / Spot / Expand Spot / Tracking
EYE AF	[Still images] Human (Right/Left Eye Select) / Animal (Right/Left Eye Select) / Bird, [Movie] Human (Right/Left Eye Select) / Animal (Right/Left Eye Select) / Bird
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, Focus Map (Movie), AF Assist (Movie)
AF ILLUMINATOR	Yes (with Built-in LED type)
AF ILLUMINATOR RANGE	Approx. 0.3 m - approx. 3.0 m (with FE 28-70 mm F3.5-5.6 OSS lens attached)
FOCUS TYPE WITH LA-EA3 (SOLD SEPARATELY)	Phase-detection
Exposure	
METERING TYPE	1200-zone evaluative metering
METERING SENSOR	Exmor R CMOS sensor
METERING SENSITIVITY	EV-3 to EV20 (at ISO100 equivalent with F2.0 lens attached)
METERING MODE	Multi-segment, Center-weighted, Spot (Standard / Large), Entire Screen Avg., Highlight
EXPOSURE COMPENSATION	+/- 5.0 EV (1/3 EV, 1/2 EV steps selectable)
EXPOSURE 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)
EXPOSURE MODES	[Still images] Intelligent Auto (Auto) / Program Auto (P) / Aperture Priority (A) / Shutter Priority (S) / Manual Exposure (M), [Movie] Intelligent Auto (Auto) / Program Auto (P) / Aperture Priority (A) / Shutter Priority (S) / Manual Exposure (M) / Flexible Exp. Mode, [Slow & Quick Motion] Intelligent Auto (Auto) / Program Auto (P) / Aperture Priority (A) / Shutter Priority (S) / Manual Exposure (M) / Flexible Exp. Mode
ISO SENSITIVITY (RECOMMENDED EXPOSURE INDEX)	Still images: ISO 100-51200 (ISO numbers from 50 to 204800 can be set as expanded ISO), AUTO (ISO 100-12800, selectable lower limit and upper limit), Movies: ISO 100-51200 equivalent (ISO numbers up to 102400 can be set as expanded ISO), AUTO (ISO 100-12800, selectable lower limit and upper limit)
ANTI-FLICKER SHOOT	Yes
SCENE SELECTION	-
Viewfinder	
VIEWFINDER TYPE	1.3 cm (0.5 type) electronic viewfinder (Quad-VGA OLED)
NUMBER OF DOTS	3 686 400 dots
FIELD COVERAGE	100%
MAGNIFICATION	Approx. 0.78x (with 50 mm lens at infinity, -1m)
DIOPTRE ADJUSTMENT	-4.0 to +3.0 m[1]
EYE POINT	Approx. 23 mm from the eyepiece lens, 18.5 mm from the eyepiece frame at -1m-1 (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
FINDER FRAME RATE SELECTION	STD 60 fps / HI 120 fps
LCD Screen	
MONITOR TYPE	7.5 cm (3.0-type) type TFT
NUMBER OF DOTS	1 036 800 dots

TOUCH PANEL	Yes
BRIGHTNESS CONTROL	Manual (5 steps between -2 and +2), Sunny Weather mode
ADJUSTABLE ANGLE	Opening Angle: Approx. 176 °., Rotation Angle: Approx. 270 °.
FOCUS MAGNIFIER	Yes, Focus Magnifier (35 mm full frame: 5.5x / 11.0x, APS-C: 3.6x / 7.2x)
Other Features	
PLAYMEMORIES CAMERA APPS™	-
CLEAR IMAGE ZOOM	Still images: Approx. 2x, Movies: Approx. 1.5x (4K), Approx. 2x (HD)
DIGITAL ZOOM	Smart zoom (Still images): 35 mm full frame: M: approx. 1.5x, S: approx. 2x, APS-C: S: approx. 1.3x, Digital zoom (Still images): 35 mm full frame: L: approx. 4x, M: approx. 6x, S: approx. 8x, APS-C: M: approx. 4x, S: approx. 5.3x, Digital zoom (Movie): 35 mm full frame: approx. 4x, APS-C: approx. 4x
FACE DETECTION	Modes: Face/Eye Priority in AF, Face Priority in Multi Metering, Regist. Faces Priority
SELF-PORTRAIT SELF-TIMER	-
OTHERS	-
Shutter	
TYPE	Electronically-controlled, vertical-traverse, focal-plane type
SHUTTER TYPE	Mechanical shutter / Electronic shutter
SHUTTER SPEED	Still images: 1/8000 to 30 s, Bulb, Movies (NTSC mode): 1/8000 to 1/4 (1/3 steps), up to 1/60 in AUTO mode (up to 1/30 in Auto slow shutter mode), Movies (PAL mode): 1/8000 to 1/4 (1/3 steps), up to 1/50 in AUTO mode (up to 1/25 in Auto slow shutter mode)
FLASH SYNC. SPEED	1/250 s (35 mm full frame), 1/320 s (APS-C)[10]
ELECTRONIC FRONT CURTAIN SHUTTER	Yes (ON/OFF)
SILENT SHOOTING	Yes (ON/OFF)
Image Stabilization	
TYPE	Image Sensor-Shift mechanism with 5-axis compensation (Compensation depends on lens specifications)
COMPENSATION EFFECT	5.5 stops (based on CIPA standard. Pitch/yaw shake only. With Planar T* FE 50 mm F1.4 ZA lens mounted. Long exposure NR off.)
Flash Control	
CONTROL	Pre-flash TTL[11]
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[12], Hi-speed sync.[12]
RECYCLING TIME	-
EXTERNAL FLASH COMPATIBILITY	Sony α System Flash compatible with Multi Interface Shoe, attach the shoe adaptor for flash compatible with Auto-lock accessory shoe
FE LEVEL LOCK	Yes
WIRELESS CONTROL	Yes (Light signal: 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
CONTINUOUS DRIVE SPEED (APPROX. MAX.)	Continuous shooting: Hi+: 10 fps, Hi: 8 fps, Mid: 6 fps, Lo: 3 fps[13]
	JPEG Extra fine L: over 1000 frames, JPEG Fine L: over 1000 frames, JPEG Standard

NO. OF RECORDABLE FRAMES (APPROX.)	L: over 1000 frames, RAW: over 1000 frames, RAW & JPEG: over 1000 frames, RAW (Lossless Compressed): over 1000 frames, RAW (Lossless Compressed) & JPEG: over 1000 frames, RAW (Uncompressed): over 1000 frames, RAW (Uncompressed) & JPEG: 828 frames[13]
SELF-TIMER	10 s delay / 5 s delay / 2 s delay / Continuous self-time / Bracketing self-timer
PIXEL SHIFT MULTI SHOOTING	-
Playback	
PHOTO CAPTURE	Yes
MODES	Single (with or without shooting information Y RGB histogram & highlight / shadow warning), Index view, Enlarged display mode (L: 19.5x, M: 12.8x, S: 9.7x), Auto Review, Image orientation, Folder selection (Date / Still / Movie), Protect, Rating, Display as Group, Shot Mark (Movie), Divider Frame, Crop
Interface	
PC INTERFACE	Mass-storage / MTP
MULTI / MICRO USB TERMINAL	Yes[14]
BLUETOOTH	Yes (Bluetooth Standard Ver. 4.1 (2.4 GHz band))
MULTI INTERFACE SHOE	Yes (with Digital Audio Interface)[15]
MIC TERMINAL	Yes (3.5 mm Stereo minijack)
SYNC TERMINAL	-
HEADPHONE TERMINAL	Yes (3.5 mm Stereo minijack)
VERTICAL GRIP CONNECTOR	Yes
LAN TERMINAL	-
FUNCTIONS	FTP Transfer Func. (Wired LAN(USB-LAN), USB Tethering, Wi-Fi), View on Smartphone, Remote control via Smartphone, PC Remote, BRAVIA Sync (Control for HDMI), PhotoTV HD
Audio	
MICROPHONE	Built-in, stereo
SPEAKER	Built-in, monaural
Print	
COMPATIBLE STANDARDS	Exif Print, Print Image Matching III
Custom Function	
TYPE	Custom key settings, My Menu, My Dial Settings, Reg Cust Shoot Set, Programmable Setting (Body 9 sets / memory card 12 sets)
Lens Compensation	
SETTING	Peripheral Shading, Chromatic Aberration, Distortion, Breathing (Movie)
Accessibility	
SCREENREADER	Yes (Language: English, Speed: 7 steps, Volume: 16 steps)[16]
Power	
SUPPLIED BATTERY	One rechargeable battery pack NP-FZ100
BATTERY LIFE (STILL IMAGES)	Approx. 520 shots (Viewfinder) / approx. 580 shots (LCD monitor) (CIPA standard)[17]
BATTERY LIFE (MOVIE, ACTUAL RECORDING)	Approx. 100 min (Viewfinder) / Approx. 110 min (LCD monitor) (CIPA standard)[18]
BATTERY LIFE (MOVIE, CONTINUOUS RECORDING)	Approx. 170 min (Viewfinder) / Approx. 175 min (LCD monitor) (CIPA standard)
INTERNAL BATTERY CHARGE	Yes (Available with USB Type-C Terminal. USB Power Delivery compatible)

POWER CONSUMPTION WITH VIEWFINDER	Still images: approx. 3.8 W (with FE 28-70 mm F3.5-5.6 OSS lens attached), Movies: approx. 5.7 W (with FE 28-70 mm F3.5-5.6 OSS lens attached)
POWER CONSUMPTION WITH LCD SCREEN	Still images: approx. 3.4 W (with FE 28-70 mm F3.5-5.6 OSS lens attached), Movies: approx. 5.6 W (with FE 28-70 mm F3.5-5.6 OSS lens attached)
USB POWER SUPPLY	Yes (Available with USB Type-C Terminal. USB Power Delivery compatible)
Others	
OPERATING TEMPERATURE	0 - 40 °C / 32 - 104 °F
Size & Weight	
WEIGHT (WITH BATTERY AND MEMORY CARD INCLUDED)	Approx. 658 g (approx. 1 lb 7.3 oz)
DIMENSIONS (W X H X D)	Approx. 131.3 mm x 96.4 mm x 79.8 mm, approx. 131.3 mm x 96.4 mm x 69.7 mm (From grip to monitor) (approx. 5 1/4 x 3 7/8 x 3 1/4 inches, approx. 5 1/4 x 3 7/8 x 2 3/4 inches (From grip to monitor))
What's in the Box	
Supplied Accessories	Rechargeable Battery NP-FZ100 AC adaptor Power cord Shoulder strap Body cap Accessory shoe cap Eyepiece cup USB-A to USB-C cable (USB 3.2)
General Features	
Lithium Battery	Yes
Chemistry of Embedded Battery	Lithium Metal
Battery Form	Rechargeable

1. Approximate effective.
2. Compared to the Alpha 7 III.
3. Sony test conditions. 15-stop for Still images. 15+ stops for Movie.
4. CIPA standards. Pitch/yaw shake only. Planar T* FE 50mm F1.4 ZA lens. Long exposure NR off. Still-image mode.
5. Not guaranteed to be 100% dust and moisture proof.
6. 759 AF measurement points for still images. The number of points used varies according to the shooting mode.
7. Up to 10 fps in continuous “Hi+” mode and up to 8 fps in continuous “Hi” mode. Maximum continuous shooting speed is reduced when shooting lossless or uncompressed RAW / RAW+JPEG images. Maximum fps will depend on camera settings. Sony test conditions.
8. CFexpress Type A memory card is required.
9. “Tracking” must be activated in the menu.
10. Accurate focus may not be achieved with certain subjects in certain situations.
11. 4K QFHD (3840×2160). 7K (7032 x 3958). 4K 24p (25p) and 30p available in full-frame mode. 4K 60p (50p) recording available in Super 35mm mode only.
12. SDXC memory card (V90 or higher) or CFexpress Type A memory card (VPG200 or higher) required.
13. XAVC HS compatible editing software is required. XAVC HS format uses the MPEG-H HEVC/H.265 high-efficiency codec.
14. Angle of view and image quality may change slightly when this feature is turned on. Breathing Compensation is not available for unsupported lenses, 120p (100p) movie recording, S&Q recording at 120p (100p), or stills. Compatibility of lenses is limited. Please see Sony support page for lens compatibility. https://www.sony.net/dics/breathing/
15. Digital audio signal is available when using compatible digital MI shoe microphone.
16. The Focus Map function cannot be used under the following conditions: when shooting stills, when the Focus Magnifier function is in use, when using digital zoom, during USB streaming, when no lens is mounted, when an A-mount lens is mounted, or when using the SEL16F28. For other lenses, please use the latest firmware.
17. Not available when using the SELP1650, SEL18200LE or A-mount lenses.
18. Effectiveness may vary according to conditions.
19. The Focus Map function cannot be used in the following conditions: When shooting stills, when the Focus Magnifier function is in use, when using digital zoom, during USB streaming, when no lens is mounted, when an A-mount lens is mounted, or when using the SEL16F28. For other lenses, please use the latest firmware.
20. Catalyst version 2021.1 or later is required. Camera image stabilization must be set to [Off] or [Active] in order to use the recorded metadata for image stabilization. Gyro data is not recorded when 120 fps or 100 fps is selected.
21. The divider frame is a still image and will not be visible when only movie files are being displayed. Divider frames are created in JPEG format, even when shooting RAW, RAW+JPEG, or HEIF images.
22. Available when assigned to a custom button.
23. 5GHz communication may be restricted in some countries and regions.
24. Touch Operation must be turned on in advance via the menu.
25. 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 adaptor used and camera operating conditions.
26. 9V/3A output. Compatibility is 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.
27. Imaging Edge Desktop and Mobile are available as free download. Imaging Edge Mobile™ version 7.6 or later is required.

28. Imaging Edge Desktop (Remote/Viewer/Edit) version 3.2 or later is required. Does not support full functional compatibility with some camera models. See the Sony support site for details: https://www.sony.net/disoft/help
29. Your PC or smartphone OS must be compatible with UVC/UAC to use this functionality. Among smartphones, operation has been verified with the Xperia Pro, Xperia 1 II, Xperia 1 III, Xperia 5 II and Xperia 5 III (latest firmware required) for Android™ 11 or later (As of Oct 2021). Compatibility with other smartphones depends on manufacturers' specifications. A commercially available USB cable and/or terminal adaptor may be used to connect to equipment with a USB Type-C port. Audio will not be available when the camera is connected to an Xperia smartphone via the USB Type-C® connector using a USB 3.0 cable, and resolution is set to 1920 x 1080 or above. Audio will be available if resolution is set to HD720. Resolution is limited to 1280 x 720 when connecting via the USB Type-C® connector or Multi/Micro USB connector using a USB 2.0 cable.
30. Available formats are 4K 15p (12.5p), Full HD 60p (50p), Full HD 30p (25p), and HD720 30p (25p).
31. Slight image crop in Active Mode. "Standard" setting recommended for focal lengths of 200mm or longer. Active Mode is not available when recording at 120 (100) fps.
32. When using a compatible flash unit from Sony.