

ILMEFX3A

Cinema Line | FX3 Full-frame Cinema Camera

Introducing the smallest Cinema Line camera - optimized for solo movie shooting up to 120p¹ 4K 10-bit 4:2:2 and ISO² up to 409,600 with S-Cinetone and a compact cage free design featuring ¼"-20 mounting points, a top handle with XLR/TRS inputs, uninterrupted recording thanks to a cooling fan for effective heat dissipation⁴ and in-body image stabilization with Active mode⁶ for steady handheld shooting.



Features

Optimized for cinematic expression

The FX3 features a 10.2MP¹¹ Full-frame Backside-illuminated (BSI) Exmor R CMOS sensor that delivers sensitivity, speed and superior movie quality. The sensor features a color filter array that boosts color reproduction accuracy while delivering up to 15+ stops of dynamic range³ and drastically reduced noise for ultra-sharp and clean images with a fast readout speed that reduces rolling shutter. In addition, the Exmor R sensor features Sony's acclaimed fast hybrid autofocus with 627 phase detection AF points and 89% coverage⁷. The high sensitivity also allows it to autofocus in light as low as EV-6.

High-performance fast processing

The FX3 features the same BIONZ XR system architecture as the FX6, with high processing performance from image capture through all signal processing stages. User interface, network, and file management processing is distributed so that fast, stress-free control response is maintained regardless of real-time processing load. The engine also makes it possible to deliver high sensitivity and natural gradations, realistic color reproduction, low noise, and other image quality improvements as well as faster, more precise AF plus the ability to process the large amounts of data required for 4K 120p¹ 10-bit 4:2:2 recording. It also features improved menu response and high-speed write to CFexpress Type A memory cards.

S-Cinetone for that expressive cinematic look

In response to a growing need for more expressive depth, the FX3, along with FX9 and FX6 Cinema Line cameras, allows users to easily create a cinematic look without post-production using S-Cinetone picture profile. Inspired by the color science used in Sony's flagship VENICE camera, S-Cinetone delivers natural mid-tones, plus soft colors and gorgeous highlights that are essential to cinematic expression. S-Cinetone is the default for Picture Profile 11 (PP11) on the FX3.

Cage free design

An easily manageable compact body that doesn't get in the way translates directly into increased workflow efficiency and shooting freedom for creators involved in video production. The FX3 is designed to eliminate the need for a camera cage, including six standard ¼"-20 UNC threaded mounting points to easily and securely attach compatible accessories such as external monitors, recorders, wireless microphones, or other add-ons. In addition, the supplied top handle with XLR interface securely attaches to the body via the Multi Interface Shoe without any special tools and provides three additional thread holes. Since no cage is required, the system size and weight is reduced making transporting easier and setup time quicker. The FX3 has everything a single operator needs for video production in a versatile, easy-to-use compact and lightweight package that can be expanded to meet growing needs.

Smallest Cinema Line camera for solo shooting

As the most compact model in the Cinema Line, the FX3 is not only the smallest and lightest, but it also features a design that eliminates the need for a cage while providing an XLR handle unit that maximizes handheld shooting flexibility and ideal for gimbal and drone-mounted work. It weighs just 1.576 lbs. (715 g), including battery and memory cards, and the body is only 5.11" x 3.33" x 3.06" (129.7 x 84.5 x 77.8mm) HxWxD. The camera grip has been carefully designed with professional creators to provide optimum flexibility, stability, and comfort for extended handheld shooting sessions.

Digital XLR on top handle, MI shoe and 3.5mm jack audio options

The FX3 offer a variety of audio input options to suit different workflows and professional requirements. The body incorporate a standard 3.5 mm mic. jack, Sony's digital MI (Multi Interface) shoe for cable free connection with compatible MI shoe microphones and the XLR top handle which includes a 3.5mm mic jack and two balanced XLR/TRS audio inputs, enabling high quality audio to the FX3. With an optional XLR or TRS microphone connected, the XLR module on the handle takes care of the A/D (Analogue to Digital) conversion and DSP (Digital Signal Processing) and transfers the digital audio data directly to the camera for outstanding audio quality. Camera settings provide audio recording formats, including 4-channel 24-bit recording. Since the XLR adaptor is integrated into the handle and does not require any additional cables or batteries, it offers stress-free set up.

Astonishing low-light performance and 15+ stops dynamic range³

The 10.2MP¹¹ sensor is optimized for 4K with full-pixel readout and to make use of much larger individual pixels for maximum light gathering capabilities. The full-frame sensor offers more light gathering area than smaller super-35 sensors, while fewer pixels mean each individual pixel is larger than on higher pixel-count full-frame sensors resulting in astonishing low-light capabilities with a high signal-to-noise ratio. It has a Standard ISO range from 80 to 102,400, expandable to 40 to 409,600 for stills and 80 to 409,600 for movies. The FX3 also employs Sony's industry-leading Exmor R backside-illuminated CMOS image sensor technology for additional low light gathering performance and to double the readout speed. Thanks to the high-sensitivity, Exmor R sensor and fast processing, the dynamic range for movies is an impressively wide 15+ stops³.

High speed for slow motion

The FX3 offers several in-camera 4K recording modes to match your creative need and desired format. 4K resolution at up to 120 frames per second⁵ delivers extraordinarily smooth 5x (max.) slow-motion imagery¹⁷. In addition to supporting 10-bit 4:2:2 recording, this feature can be used with efficient inter-frame (Long GOP) compression or high-quality intra-frame (All-I) compression. A maximum bit rate of 1200 Mbps (4:2:2 10-bit, H.264, All-I)⁵ delivers supreme image quality when directly replaying movies in slow or quick motion in the S&Q mode¹⁷. Up to 10x slow motion with Full HD resolution is possible at 240 fps (24p recording), providing fresh perspectives on dynamic sports and other types of action.

Uninterrupted 4K 60p recording⁴

Creators need more than just refined features and performance; they also need reliability and durability. Heat buildup from processing large volumes of data when recording high-bitrate (10-bit/16-bit), high-resolution 4K and high frame-rate (60p/120p¹) movie can plague other systems, but not the FX3. It combines a fan for active cooling in addition to the unique camera-wide passive heat dissipation structure - with effective heat dissipation resulting in uninterrupted 4K 60p recording without thermal shutdown⁴. The newly developed fan provides high-efficiency cooling by drawing air into the camera via the bottom panel and exhausts via the side. Cooling modes include: Auto, Minimum (Quiet and slow speed), Off in Rec. (Max speed when not recording) and Always Off.

10-bit 4:2:2 video reaches new levels of realism

The FX3 offer several recording options to meet the needs of different content creators, including; 10-bit 4:2:2 XAVC S™ (MPEG-4 AVC/H.264 Long GOP) and XAVC S-I (MPEG-4 AVC/H.264 Intra) formats in either 4K (QFHD) or FHD as well as 10-bit 4:2:2 XAVC HS™ (MPEG-H HEVC/H.265), in 4K only. For even greater post production flexibility, up to 60p 4K (4264 x 2408) uncompressed 16-bit RAW⁹ format can be output to an external device via full-size HDMI Type-A jack from the FX3.

Efficient MPEG-H HEVC/H.265 (XAVC HS™) coding

In addition to Sony's common XAVC S™ (MPEG-4 AVC/H.264) codec found on many models, the FS3 adds XAVC HS format recording²¹ using the MPEG-H HEVC/H.265 codec for approximately twice the efficiency of XAVC S. You can record more detailed 10-bit 4K video at higher bit rates while keeping data volume within a manageable range. Image quality is better than XAVC S at a comparable bit rate, and equal to XAVC S at lower bit rates. H.265 video can be recorded internally to SDXC or CFexpress Type A memory cards¹.

16-bit RAW output⁹ for movie

To answer the increasing demand for RAW recording, the FX3 is capable of 16-bit RAW output⁹ up to 4K 60p to an external device via full-size HDMI Type A, for applications that demand the highest quality and post-production flexibility provided by RAW output. Full-frame 4K (4264 x 2408) 16-bit image output is possible, with a choice of frame rates (60p/50p/30p/25p/24p). You can also output RAW video via HDMI while recording XAVC HS 4K, XAVC S 4K, or XAVC S-I 4K to internal card media. Proxy recording is available during RAW output.

Easy S-Log matching with professional camcorders

In many cinema workflows, the ability to match the color of footage from multiple cameras is essential. The FX3 includes S-Log2 and S-Log3 gamma curves, the latter emphasizing shadow to mid-tone gradations and making it possible to achieve a dynamic range of 15+ stops³. Three color gamut settings are provided: S-Gamut, S-Gamut3, and S-Gamut3.Cine. The S-Gamut3 and S-Gamut3.Cine color gamut settings make it easy to match FX3 footage with that shot on professional camcorders equipped with S-Log3 gamma curve settings. Minimum ISO when shooting S-Log has been reduced to 640, and the 160 to 500 range of expanded ISO can be used as well. Sensitivity can be lowered by as much as 2 stops below the normal ISO range for extra-low-noise recording.

10-bit 4:2:2 HLG (Hybrid Log-Gamma)⁸

The FX3 provides HLG⁸ (Hybrid Log-Gamma) high-dynamic-range picture profile that supports the wide-gamut BT.2020 color space for true-to-life imagery with detailed shadows and highlights, with no need for color grading. Video recorded with this picture profile can be directly played back on an HDR (HLG) compatible Sony TV. 10-bit recordings reproduce finer gradation and detail for extraordinary realism. Gamma can be selected from four presets: HLG (corresponding to IYU-R BT.2100), HLG1, HLG2, and HLG3. These gamma settings provide varying blends of dynamic range and noise performance, generally achieving wider dynamic range that still blends well with images from previous cameras.

10 in-camera Creative Looks

A selection of Creative Looks makes it easy to create interesting moods for stills and movies right in the camera. 10 Creative Looks are provided as presets with different combinations of color, color depth, brightness, contrast, sharpness, and more. The presets can be used as they are, or customized by the user. Customized Creative Looks can be stored as Custom Looks for later recall and use.

Fast Hybrid AF in all modes

The FX3 inherits AF performance from Sony's FX9 and FX6 Cinema Line cameras, incorporating the highly acclaimed Fast Hybrid AF for movie shooting in all modes, including 4K 120p¹. The Exmor R sensor and powerful BIONZ XR processing engine make it possible to provide a high-density array of 627 selectable focal plane phase-detection AF points⁷ for high-speed autofocus tracking capability with the precision of contrast-detection AF to quickly lock onto subjects that move erratically or change speed suddenly and track them with tenacious reliability across 89% (approx.) of the imaging area (94% vertically and 95% horizontally). Focus can even be reliably maintained when the subject is briefly obscured or when shooting with a small aperture.

Tenacious Real-time AF Tracking

AI-based Real-time Tracking for autofocus makes solo shooting a breeze thanks to the new BIONZ XR processing engine and a new subject recognition algorithm that uses color, pattern (brightness), distance (depth), face and eye information to process spatial information in real time at high speed. The focus area will seamlessly change between face and eye to object tracking according to the condition of the subject.

Real-time Eye AF⁵

Real-time Eye AF⁵ employs AI (artificial intelligence) to detect and process eye data and track the subject's eye with unprecedented precision. The superior real-time data processing capability of the new BIONZ XR image processing engine ensures accurate, reliable detection even when faces are looking away at extreme angles. Real-time Eye AF is available in all recording modes, including 4K up to 120p¹. When the Touch Tracking feature is used, Real-time Eye AF is simultaneously initiated if the [Face/Eye Priority in AF] menu item is ON. In addition to automatic eye selection, it's possible to manually preselect the subject's right or left eye.

Intuitive touch AF control

The Touch Tracking feature makes it easy to initiate Real-time Tracking of any subject within the frame and can be initiated simply by touching that subject on the screen. The powerful real-time processing capabilities of the new BIONZ XR image processing engine, use Real-time AF tracking with advanced AI (artificial intelligence) algorithms to reliably and smoothly track the selected subject while you concentrate on composition and shooting. This can be huge advantage when using a gimbal or shooting solo. Touch Focus can be used to temporarily engage AF when focusing manually. It is also possible to remotely control Touch Tracking during AF or Touch Focus during manual focus from the Imaging Edge Mobile application (Ver. 7.4 or later) running on a mobile device¹³.

Advanced features for easier manual focus

Autofocus support can be useful even when primarily using manual focus. It is sometimes advantageous to temporarily activate autofocus quickly to acquire focus on a subject before reverting back to MF. Focus can automatically be acquired at full AF speed in the same way as when shooting stills by half depressing the shutter button or pressing the AF-ON button. AF can also temporarily be activated via the Touch Focus feature, and Real-time Eye AF⁵ can be initiated via a custom button assignment with AF smoothly locking on at the preset AF Transition Speed.

Advanced AF transition and sensitivity settings

Inherited from the FX9 and FX5 Cinema Line cameras, [AF Transition Speed] and [AF Subject Shift Sensitivity] parameters allow more detailed AF control. [AF Transition Speed] provides 7 speed settings and is ideal for creating rack focus effects to effectively guide the viewers' eye. [AF Subject Shift Sensitivity] provides 5 sensitivity settings that determine how "sticky" AF will be (how easily AF will switch to another subject or how tenaciously it will stay with the locked-on subject). Both these parameters can be assigned to custom keys for fast access while shooting.

Active Mode⁶ stabilization for handheld movie shooting

The FX3 features highly effective 5-axis in-body image stabilization with any lens attached. The powerful BIONZ XR image processing engine with advanced real-time processing utilizes gyro sensors, plus optimized image stabilization algorithms to combine the new high-precision 5-axis stabilization unit with electronic Active Mode⁶ stabilization for movie shooting in 4K and other formats. This makes handheld shooting as stable as you can get without having to use a gimbal. Using optically stabilized lenses further enhance stability as the camera uses both in-body and optical lens stabilization together as well. Additionally, the FX3 records image stabilization metadata that can be adjusted during post-production using Catalyst Browse/Prepare¹⁸.

Touch screen functionality

Navigation on the FX3 is quick and intuitive with menu tabs situated on the left and parameter groups in the middle while individual parameters are on the right. The menu stature is also completely touch-responsive and parameters can be instantly

selected by directly touching them on the display panel while lists can be scrolled by swiping for unprecedented navigation and operation efficiency. Images to be reviewed can be selected by touch, and pinch-out/pinch-in gestures can be used to enlarge or reduce the selected image. Touch operation while shooting is also available for Touch Focus and Touch Tracking modes in addition to operating settings in the Fn menu. Touch sensitivity can be set to "Standard" or "Sensitive" for maximum control response and reliability.

Customizable features

The highly customizable FX3 is designed for content creator with different needs and styles of shooting. Quickly and easily setup the camera to match your specific needs with 140 Functions assignable to 15 custom keys. Independent function sets can be assigned for stills, movies, and playback. Separate functions can be assigned to the Fn button for the still and movie modes. Tailored to your shooting needs, items can be assigned and arranged in any convenient order to the custom My Menu tab. Custom function assignments can also be made to the front, rear dials and control wheel, so that frequently used functions are instantly available when needed. Its even possible to save and transfer setups to a separate body of the same model, making multi camera shoots efficient.

Simultaneous display on external HDMI device

The FX3 allows 4K video display on three devices simultaneously for maximum monitoring versatility: the camera monitor, an external HDMI recorder/monitor, and the Imaging Edge Mobile app¹³ connected via Wi-Fi. Output to an external monitor is also possible during proxy recording, and with appropriate settings the Real-time Eye AF⁵ frame can be displayed on the external device as well. Although active in some configurations, touch functions may be limited or unavailable when using external recorders and monitors.

Direct Iris, ISO and Shutter exposure control, optimized for video

The Flexible Exposure Mode allows the Auto and Manual modes for iris (aperture), shutter speed, and ISO to be set independently. The Flexible Exposure Mode is ON by default, while a long-press of the custom buttons assigned to the respective function will switch between Auto and Manual. The Manual (default) setting allows aperture, shutter speed, and/or ISO to be set manually as required, but a Manual Lock function activated by a short press on the respective custom buttons locks the related controls to prevent changes if the dial or wheel is accidentally moved. The frequently used aperture (iris) and ISO functions can be controlled by the easily accessible front and rear dials as well as the dial on the top panel.

Created for content creators

The flat-top minimalist body design of the FX3 is amply supplied with operation features developed by Sony through years of designing and manufacturing professional cinema equipment. Every aspect of this camera, from hardware such as controls, tally lamp, custom buttons, and a vari-angle LCD monitor, to software-based features such as touch-responsive menus and parameters, have been designed to give creators what they need in real-world applications. Frequently used controls located on the grip and on the top of the body make it easier to firmly hold the lens with the left hand when shooting solo. The REC button and others on the top panel have been designed with a longer stroke for sure operation even with a thumb.

Custom zoom settings

Optimized for movie making, the FX3 features a zoom lever located on the top of the grip which not only controls compatible powered zoom lenses, but also allows Clear Image Zoom to be used with unpowered zoom and prime lenses with less image degradation. This can significantly reduce the number of lenses required for many projects. Zoom speed can be assigned to a custom button or selected conditionally depending on whether the camera is in standby mode or recording. Remote zoom control is also supported from the Imaging Edge Mobile app¹³ or an optional remote-control unit.

White balance adjustment while recording movies

The ability to change white balance while recording video can be a huge advantage when working with mixed lighting. White balance can be adjusted to match changes in the scene while recording movies, and the adjustments can be made to occur slowly and smoothly without abrupt "jumps" (shockless WB). You can maintain natural-looking white balance when moving from indoor to outdoor situations while shooting a wedding, for example.

Rec. tally lamps and rec. confirmation

Three recording (tally) lamps are provided so that both the operator and talent can easily confirm recording. The Rec. button on the top illuminates when recording is in progress as well as a front and back tally lamp of the camera. In addition, to make it clear when the camera is in record mode, a red frame appears on the monitor display so that the operator can easily confirm that recording is in progress when the camera is mounted on a rig or gimbal, or in other situations where the display is hard to see. The emphasized record display can be turned on or off according to shooting needs.

More moviemaking aids

As expected on a cinema style camera, the FX3 includes features to make moviemaking and even still image capture easier. Zebra function can be activated to assist setting exposure while peaking can be used for accurate manual focus control. Gamma display assist is useful when shooting in any of a number of picture profiles and can be set to OFF, Auto, S-Log2, S-Log3, HLG⁸ (BT.2020) and HLG (709). TC/UB (time code and user bit) are also useful when shooting with multiple cameras that have to be sync'd for easier post-production workflow.

Consistently accurate color reproduction

The high speed and capacity of the new BIONX XR processing engine in the FX3 make it possible to apply more detailed, optimized processing to individual image elements, achieving outstanding color reproduction accuracy. Deep reds and fresh greens are reproduced in all their natural beauty, while skin textures and tones are smooth, realistic, and healthy looking. Consistently accurate colors are easily achieved even under different types of lighting. Another refinement that contributes to improved AWB performance is a new “Visible Light and IR Sensor” on the front of the body. This advanced sensor helps to achieve more precise white balance under artificial lighting, including fluorescent and LED lights that sometimes confuse conventional AWB systems.

12.1MP¹¹ JPEG, RAW and HEIF still image options up to 10fps with AF/AE

Even though the FX3 is optimized for cinematography, it still has the capabilities to capture 12.1MP¹¹ stills in JPEG, RAW and HEIF at up to 10fps with continuous autofocus and auto-exposure. This is a huge advantage over other movie centric cameras as it allows the user to capture reference stills on set, location scout and images for thumbnails.

Side-opening vari-angle monitor

A high-definition 3” (3.0 type) 2.36 million-dot (approx.) touch-sensitive LCD panel with side-opening vari-angle mechanism affords plenty of monitor positioning freedom for high and low viewpoints as well as waist-level, vertical, and selfie positions. Rotating sideways by as much as 176°, up by as much as 180°, and down by as much as 90°, and with ample brightness that provide optimum visibility even in bright outdoor conditions. In addition to supporting the Touch Tracking and Touch Focus functions, the new monitor also provides touch operation for the main and function menus.

Dual card slots, both compatible with SD and CFexpress Type A

Professional workflows demand two identical card slots for peace-of-mind redundant recording or extended record times with additional media options. Both upper (Slot 1) and lower (Slot 2) media slots support UHS-I and UHS-II SDXC/SDHC cards as well as new high-speed CFexpress Type A cards for higher overall capacity and faster read/write speeds. CFexpress Type A cards are ideally suited to high-speed continuous still shooting as well as 4K movie recording at high bit rates, providing next-generation write speeds that can quickly clear the buffers of cameras that generate high volumes of still image and movie data. The same data can be simultaneously recorded to both cards for backup, or you can choose to separate stills/movies as necessary. 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.

Full-size HDMI Type-A terminal

More secure than micro and mini HDMI cables, the reliable full-size HDMI Type-A connector provides the type of connectivity and durability found in professional video equipment and demanded by professionals.

Long Z-battery life extendable via USB Type C with Power Delivery¹⁴

The FX3 features an image processing engine, image sensor, and related circuitry that have been refined to optimize power economy in all shooting conditions, further extending the longevity of the high-capacity Z battery. In addition, the FX3 supports USB PD (Power Delivery)¹⁴ via the Type C® connector, allowing higher power to be supplied from a compatible external source so that recording can be continued for extended periods without draining the internal battery. A battery must be installed in the camera when supplying USB power and may still drain even if USB power is supplied, depending on the adapter used and camera operating conditions.

Keeping it clean

A new anti-dust system increases dust-removal efficiency. The filter in front of the image sensor oscillates at an ultrasonic frequency of 70,000 cycles per second, powered by a revised drive system that effectively removes dust and particles from the filter surface. The anti-dust system is automatically activated at appropriate intervals when the camera is turned off and can be activated manually via a menu whenever required. 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.

Enhanced dust and moisture resistant design¹⁰

In response to feedback from working professionals and videographers, the dust and moisture resistance¹⁰ of the FX3 is enhanced thanks to refinements throughout the body. Additional sealing is provided at all body seams as well as the battery compartment cover, and the media slot now has a double sliding cover and lock lever rather than the previous hinged cover to keep water out. A redesigned lens lock button and additional cushioning around the mount are other refinements that contribute to outstanding reliability even in challenging outdoor conditions. Although the dust and moisture resistance and therefore reliability have been significantly improved, the body dimensions remain compact.

Durable 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. Additionally, the mount is attached by six screws for extra strength and rigidity that can handle heavy super-telephoto lenses.

High transfer speed USB Type-C® (USB 3.2) connector

A USB Type-C® connector that supports fast USB Type C® (SuperSpeed USB 5Gbps (USB 3.2)) data transfer is provided. This makes high-speed PC Remote (tethered) data transfer available for smooth handling of large image files. It also provides USB to high-speed wired LAN connectivity via an optional USB-Ether wired LAN adapter cable that provides direct connectivity to 1000BASE-T Ethernet networks for fast wired FTP data transfers. This provides high-speed data transfer capability in environments where wireless LAN is not available. Movie file transfer is supported.

FTP file transfer for stills and movies with 'save and load'

The FX3 can transfer movie and still image files to a specified remote FTP server via wireless LAN, high-speed wired LAN via an optional USB to Ethernet adapter, or a USB-tethered smartphone connection to a cellular network. It is also possible to specify protected files for transfer, single-file transfer via custom key assignment, a file format, and more. Up to nine FTP servers can be pre-registered. 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. All FTP transfer settings are applicable. Up to 10 sets of settings can be saved to one memory card.

Smartphone integration

The Imaging Edge Mobile application¹³ (Ver. 7.4 or later) allows a compatible mobile device to be used as a remote-control terminal and data transfer hub. This app also supports Touch Focus and Touch Tracking during movie recording. Transfer & Tagging add-on app is supported to transfer full-size still image files via Wi-Fi. New high-speed, stable USB tethering capability allows FTP data transfers to be carried out via some smartphones. GPS Location Information Link via Bluetooth allows the connected mobile device to record that data with still images or movies (refer to manual for more details). It is also possible to transfer files from a memory card in the camera via Wi-Fi even if the camera power is OFF.

Proxy Recording²⁸

Low-bit-rate HD proxy files can be recorded²⁸ simultaneously with all recording formats, including XAVC S-I 4K. The smaller proxy video files can be used for offline editing previews prior to final 4K 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 file recording can be selected as required.

Specification

General	
Camera type	Interchangeable lens digital camera
Lens mount	E-mount
Camera Section	
Type	35mm full frame (35.6 x 23.8 mm), Exmor R CMOS sensor
Number of pixels (effective)	Movie: Approx. 10.3 megapixels, Still image: Approx. 12.1 megapixels *Number of effective pixels varies depending on attached lenses and camera settings.
Number of pixels (total)	Approx. 12.9 megapixels
Latitude	15+ stop (S-Log3)
Color temperature range	Auto / Daylight / Shade / Cloudy / Incandescent / Fluorescent / Flash / Underwater / Color Temperature (2500 to 9900K) & color filter / Custom
Focus System	
Type	Fast Hybrid AF (phase-detection AF / contrast-detection AF)
Focus point	[Movie] 627 points, [Still image] 35mm full frame: 759 points (phase-detection AF)
Sensitivity range	EV-6 to EV20 (ISO100 equivalent with F2.0 lens attached)
Other features	Eye AF ([Movie] Human (Right/Left Eye Select, [Still image] Human (Right/Left Eye Select) / Animal.), [Movie] AF Subj. Shift Sensitivity, [Movie] AF Transition Speed, [Still] AF Track Sens., Face detection (Face Priority in AF), Face Priority in Multi Metering, Regist. Faces Priority, Focus Magnifier (35mm full frame: 2.1x / 4.1x APS-C: 1.5x / 3.0x)
Exposure Control	
Metering sensitivity	EV-3 to EV20 (at ISO100 equivalent with F2.0 lens attached)

Image Stabilization	
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.)
Mode	[Movie] Active / Standard / Off, [Still image] On / Off
Playback	
Modes	Index view, Folder selection (Date / Still / Movie), Photo capture, 4Ch audio monitoring, Auto Review (stills), Image orientation (stills), Protect (stills), Rating (stills), Display as Group (stills)
Interface	
HDMI output	HDMI connector (Type-A), YCbCr 4:2:2 10bit / RGB 8bit
Multi Interface Shoe	With Digital Audio Interface *Sony accessories for the Accessory Shoe can be attached
Headphone terminal	3.5 mm Stereo minijack
TC input / TC output	Multi/Micro USB, TC IN *A dedicated adapter cable (sold separately) is required to connect the Multi/MicroUSB terminal of the camera to the BNC output terminal of a commercially available BNC cable.
Lens Compensation	
Lens compensation	Shading, Chromatic Aberration, Distortion, Breathing (Movie)
Power	
Internal battery charge	Yes (Available with USB Type-C terminal. USB Power Delivery compatible) *Requires USB PD (18W min.) power supply and cable (3A min.) if charging the battery pack while it is inserted into the camera.
USB power supply	Yes (Available with USB Type-C Terminal. USB Power Delivery compatible)
Operation	
Operating temperature	0 to 40 degrees C, 32 to 104 degrees F
Storage temperature	-20 to +55 degrees C, -4 to +131 degrees F
Supplied Accessories	
Supplied Accessory	Rechargeable Battery NP-FZ100; Battery Charger BC-ZD1* ; XLR handle unit; Accessory shoe kit; Body cap; Accessory shoe cap; Handle shoe cap *USB PD compatible power supply and USB cable are not included for the Battery Charger BC-ZD1 (supplied). Simultaneous two-battery charging requires a USB PD compatible power supply that can deliver 30W or higher. Single-battery charging requires a USB PD compatible power supply that can deliver 18W or higher. A USB cable that can handle 3A or more is required in both cases.

- 120p has a 1.1x crop. XAVC S-I 4K 60p 10-bit 4:2:2 requires SDXC V90 or faster. XAVC S / XAVC HS 4K 120p 10-bit 4:2:2 requires SDXC V60 or faster. XAVC S HD 240p 10-bit 4:2:2 requires SDXC V60 or faster. XAVC S-I (S&Q) 4K 120p 10-bit 4:2:2 requires CFexpress Type A (VPG200 or higher). CFexpress Type A supports all internal shooting modes.
- ISO range: [Stills] 80-102,400 (Standard), 40-409,600 (Expanded), [Movies] 80-102,400 (Standard), 80-409,600 (Expanded).
- Movie shooting with S-Log 3. Sony test conditions. May require color grading.
- Uninterrupted 4K 60p recording based on Sony internal tests. USB power supply, XAVC S-I (All-I), 4K 60p 10-bit 4:2:2, 25 deg C / 77 deg F (ambient, camera temperature when recording started), Auto power off temperature: High, Cooling fan: Auto. The duration will vary depending on the shooting conditions. The maximum continuous recording time for a single movie shooting session is approximately 13 hours (a product specification limit)
- Human & animal. Animal Eye-AF not available in movie mode.
- Slight 1.1x (10%) image crop in Active Mode. "Standard" setting recommended for focal lengths of 200mm or longer. Active Mode is not available when recording at frame rates of 120 fps (100 fps PAL) or higher, or when using S&Q.
- Maximum AF points and area coverage. This varies according to the recording modes. 627 phase detection AF points with 89% coverage for movie. 759 phase detection AF points with 92% coverage for stills.
- HLG is a high dynamic range TV format specified by the international ITU-R BT.2100 standard.
- Requires optional compatible external recorder.
- Not guaranteed to be 100% dust and water resistant.
- 10.2 effective megapixels for movies and 12.1 effective megapixels for stills.
- Compared to previous BIONZ X processing engine.

13. Latest version Image Edge desktop application is required. Available for free for iOS and Android. Download app at Google Play and the App Store. Network services, content, and operating system and software subject to terms and conditions and may be changed, interrupted or discontinued at any time and may require fees, registration and credit card information.
14. 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.
15. Via optional adaptor.
16. Models sold in some countries/regions support IEEE 802.11b/g/n (2.4 GHz) only. 5GHz communication may be restricted in some countries and regions.
17. Audio recording not available in the S&Q mode.
18. Supported in Catalyst Browse/Prepare Version 2020.1 or later. Image stabilization metadata that can be used by Catalyst is generated when using a Sony E-mount lens with the camera's optical image stabilization set to [OFF] or [Active].
19. USB PD compatible power supply and USB cable are not included for the Battery Charger BC-ZD1 (supplied). Simultaneous two-battery charging requires a USB PD compatible power supply that can deliver 30W or higher. Single-battery charging requires a USB PD compatible power supply that can deliver 18W or higher. A USB cable that can handle 3A or more is required in both cases.

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