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Groundbreaking Alpha 1 Camera Marks a New Era in Professional Imaging

- *New 50.1-megapixel (approx., effective) full-frame stacked Exmor RS™ CMOS image sensor in combination with an upgraded BIONZ XR™ imaging processing engine with eight times more processing power*[\[i\]](#)
- *Blackout-free continuous shooting at up to 30 frames per second*[\[ii\]](#)
- *Fast sensor readout enables up to 120 AF/AE calculations per second*[\[iii\]](#), double the speed of the Alpha 9 II, even during 30fps continuous shooting
- *Bright and large 0.64-type 9.44 million-dot (approx.) OLED Quad-XGA electronic viewfinder with the world's first*[\[iv\]](#) refresh rate of 240 fps
- *Silent, vibration-free electronic shutter*
- *World's first*[\[v\]](#) anti-flicker shooting with both mechanical and

electronic shutter

- *Electronic shutter flash sync [\[vi\]](#) up to 1/200 sec. for the first time in the Alpha™ series*
- *World's fastest^y mechanical shutter flash sync up to 1/400 sec.*
- *8K 30p [\[vii\]](#) 10-bit 4:2:0 XAVC HS video recording with 8.6K oversampling for extraordinary detail and resolution, in addition to 4K 120p [\[viii\]](#) 10-bit 4:2:2 movie shooting capabilities*
- *Wide dynamic range of 15 stops for stills [\[ix\]](#) and 15+ stops for video [\[x\]](#)*
- *Improved Real-time Eye AF (autofocus) for humans and animals, and new Real-time Eye AF for birds [\[xi\]](#), as well as Real-time Tracking that automatically maintains accurate focus*
- *5-axis optical in-body image stabilization for a 5.5-step [\[xii\]](#) shutter speed advantage*
- *S-Cinetone color matrix as seen in FX9 and FX6 to deliver expressive cinematic look*
- *Professional workflow support with the industry's fastest [\[xiii\]](#) built-in Wi-Fi, SuperSpeed USB 10Gbps, 1000BASE-T Ethernet and more*

Sony, a global leader in imaging sensor technology and digital imaging, has announced the arrival of the groundbreaking new full-frame mirrorless **Alpha 1** camera – asserting their commitment to leading the industry with a stunning combination of innovative new features.

The most technologically advanced, innovative camera that Sony has ever released, the **Alpha 1** combines high-resolution and high-speed performance at a level that has never been accomplished in the world of digital cameras. With a brand new 50.1-megapixel full-frame stacked Exmor RS™ image sensor, up to 120 AF/AE calculations per second, 8K 30p 10-bit 4:2:0 video and much more, the **Alpha 1** will allow creators to capture what they've never been able to before.

["We are always listening to our customers, challenging the industry to bring new innovation to the market that goes far beyond their expectations."](#) said

Yann Salmon Legagneur, Director of Product Marketing, Digital Imaging, Sony Europe. "Alpha 1 breaks through all existing boundaries, setting a new bar for what creators can accomplish with a single camera. What excites us the most – more than the extensive product features – is Alpha 1's ability to capture that which has never been captured before. This camera unlocks a new world of creative possibilities, making the previously impossible now possible."

The newly developed image sensor is built with integral memory and paired with an upgraded BIONZ XR imaging processing engine, making it capable of shooting 50.1-megapixel images continuously at an astounding 30fps with up to 120 AF/AE calculations per second. The Alpha 1's shooting capabilities are further enhanced by a 9.44 million dot OLED Quad-XGA electronic viewfinder, with a refresh rate of up to 240 fps[xiv], ensuring no black out. Additionally, for the first time in an Alpha series camera, 8K 30p 10-bit 4:2:0 video is available. The **Alpha 1** is also capable of 4K 120p / 60p 10-bit 4:2:2 recording and includes S-Cinetone colour. The **Alpha 1** is also packed with features that support field professionals with faster workflow, including 3.5 times faster wireless FTP transfer speed[xv] and more.

Unprecedented Resolution and Speed

Continuous Shooting at Up to 30 Frames Per Second

The **Alpha 1** captures moments that would otherwise be lost thanks to its high-speed performance, providing any photographer the speed they require to capture fast-moving objects. High speed readout from the 50.1-megapixel image sensor and a large buffer memory make it possible to shoot up to 155 full-frame compressed RAW images[xvi] or 165 full-frame JPEG images[xvii] at up to 30 frames per second with the electronic shutter while maintaining full AF and AE tracking performance[xviii].

At an astonishing calculation speed of up to 120AF/AE per second, the **Alpha 1** can maintain focus with high accuracy even for fast moving subjects. It can automatically adjust exposure, even with sudden changes in brightness, with an AE response latency as low as 0.033 secondsⁱⁱ.

Advanced Electronic Viewfinder with the World's First^{iv} Refresh Rate of 240 fps

Complimenting the camera's ability to capture images at an unprecedented speed, the **Alpha 1** viewfinder features the world's first^{iv} 240 fps refresh rate^{xiv}, for a super-smooth display. The viewfinder does not black out when an exposure is made to offer an uninterrupted view and allow for seamless framing and tracking, even during continuous shooting. The 9.44 million-dot (approx.), 0.64 type Quad-XGA high-definition OLED display and refined optics deliver the highest resolution in its class^{iv}. It also offers 0.90x[xix] viewfinder magnification, a 41° diagonal FOV, and a 25mm-high eyepoint for clear, low distortion viewing from corner to corner.

Advanced Autofocus

Sony continues to push the boundaries of autofocus technology with the introduction of the **Alpha 1**, which can easily track complex, fast-moving subjects with high precision. The camera features 759 phase detection points in a high-density focal plane phase-detection AF system cover approximately 92% of the image area – ensuring accuracy and unfailing focus in environments where focusing might otherwise be difficult.

Sony's advanced Real-time Eye AF improves detection performance by 30% over the previous systemⁱ, thanks to the powerful image processing engine, BIONZ XR. It ensures accurate, reliable detection, even when the subject's face looks away. In addition to improved Real-time Eye AF for humans and animals, the **Alpha 1** employs high-level subject recognition technology to provide Real-time Eye AF for birds^{xi}, a first in an Alpha series camera. Optimised algorithms ensure that tracking is maintained even if a sitting bird suddenly takes flight, or the framing suddenly changes[xx].

The **Alpha 1** also features AI-based Real-time Tracking that automatically maintains accurate focus. A subject recognition algorithm uses colour, pattern (brightness), and subject distance (depth) data to process spatial information in real time at high speed.

Silent, Vibration-free Electronic Shutter

High-speed readout from the new image sensor has made it possible to reduce rolling shutter by up to 1.5 times when shooting stills, compared to the **Alpha 9 II**. It also offers silent anti-flicker continuous shooting with an electronic shutter for the first time^y in the world. The electronic shutter[xxi] operates silently, without mechanical noise, and is vibration-free. Stress-free continuous shooting is now possible even when shooting in challenging lighting situations with florescent or other flicker-prone types of artificial lighting. And for the first time in an Alpha camera, electronic shutter flash sync up to 1/200 sec[xxii] is possible. The advantages of the electronic shutter advantages can now come to life even when using flash for broadly expanded shooting versatility.

Dual Driven Shutter System for 1/400 Flash Sync

The **Alpha 1** boasts the world's fastest flash sync speed^y of 1/400 sec. with mechanical shutter, making it even easier to capture dynamic action. In addition to a carbon fibre shutter curtain, the **Alpha 1** features the newly developed dual driven shutter system utilising spring and electromagnetic drive actuator, offering high durability and lightness at the same time.

High Resolution Shooting Enhancements

Even with this sensor's high pixel count, the **Alpha 1** offers high sensitivity with low noise, plus 15+ stops of dynamic range for video and 15 stops for stills, for smooth, natural gradations from shadows to highlights thanks to its cutting-edge processing system, throughout a wide ISO sensitivity range of 100-32,000 (expandable to 50-102,400, when shooting stills).

Additionally, the new camera features an evolved Pixel Shift Multi Shooting mode that composites up to 16 full-resolution images. In this mode, the camera precisely shifts the sensor in one pixel or half-pixel increments to capture 16 separate pixel-shifted images containing a total of 796.2 million pixels of data, which are then composited into a 199 million pixel (17,280 x 11,520 pixels) image using Sony's Imaging Edge™ desktop application. With a flash sync of up to 1/200 sec. in this mode, it is ideal for photographing architecture, art or any other still life subject with a level of detail and colour accuracy that is simply stunning.

Professional Video Quality

8K High-Resolution Movie Shooting

For the first time in an Alpha camera, the **Alpha 1** offers 8K 30p 10-bit 4:2:0 XAVC HS recording with 8.6K oversampling for extraordinary resolution. Combined with Sony's acclaimed autofocus technology, gradation and colour reproduction performance, the **Alpha 1** will help the user realise their creative vision with the finest detail. It's 8K footage can also be used for flexible 4K editing during post-production.

Supporting Various Video Formats for Professionals

The **Alpha 1** offers in-camera 4K recording at up to 120 frames per second^{viii} which allows the user to shoot up to 5X slow-motion video[[xxiii](#)]. 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.

The **Alpha 1** features S-Cinetone, the same colour matrix that produces the highly regarded FX9 and FX6 colour and skin tones. It delivers natural mid-tones, plus soft colours and gorgeous highlights to meet a growing need for more expressive depth. The S-Log3 gamma curve makes it possible to achieve 15+ stops of dynamic range, while the S-Gamut3 and S-Gamut3.Cine colour gamut settings make it easy to match **Alpha 1** footage with video shot on VENICE cinema camera, FX9 and other professional cinema cameras.

Heat-dissipating Structure

A unique heat dissipating structure keeps image sensor and image processing engine temperatures within their normal operating range, preventing overheating while maintaining compact body dimensions. This makes it possible to record 8K/30p video continuously for approximately 30 minutes[[xxiv](#)].

Supporting Hand-held Shooting

A high-precision stabilisation unit and gyro sensors, plus optimised image stabilisation algorithms, achieve up to a 5.5-step shutter speed advantage, maximising the quality of the high-resolution images derived from the camera's 50.1-megapixel sensor. The **Alpha 1** also features an Active Mode[[xxv](#)] that offers outstanding stabilisation for handheld movie shooting. When using Sony's desktop applications Catalyst Browse or Catalyst Prepare[[xxvi](#)] for post-production, an accurate image stabilisation function is available which utilises metadata generated by the camera's built-in gyro.

Other features that the **Alpha 1** offers include; 16-bit RAW output[[xxvii](#)] to an external recorder[[xxviii](#)] via HDMI for maximum post-production flexibility, a digital audio interface has been added to the camera's Multi Interface (MI) Shoe for clearer audio recordings from a compatible Sony external

microphone, 5.8K oversampled full pixel readout without pixel binning for high-resolution 4K movies in Super 35mm mode and more.

Enhanced Workflow with Network Technologies including Connectivity to 5G Compatible Devices

The **Alpha 1** has been designed and configured to [support photo and video journalists and sports](#) shooters who need to deliver stills or movies as quickly as possible with advanced connectivity options. It offers several features for fast, reliable file transfers. The industry's fastest^{xiii} built-in wireless LAN allows communication on 2.4 GHz and 5 GHz [\[xxix\]](#) bands with dual antennas to ensure reliable communications. 5 GHz includes 2x2 MIMO support (IEEE 802.11a/b/g/n/ac) offering 3.5 times faster wireless FTP transfer speed than the **Alpha 9 II** - a notable advantage for news and sports shooters who need to deliver with reliable speed. There is also a provided USB Type-C[®] connector to support high-speed PC Remote (tethered) data transfer available for smooth handling of large image files. The **Alpha 1** also has a built-in 1000BASE-T LAN connector for high-speed, stable data transfers, including remote shooting. FTPS (File Transfer over SSL/TLS) is supported, allowing SSL or TLS encryption for increased data security.

In addition to compressed and uncompressed RAW, the **Alpha 1** includes efficient lossless compression with no quality degradation, Lossless Compressed RAW. There is also a new "Light" JPEG/HEIF image quality setting that results in smaller files than the "Standard" setting, allowing faster deliver for news and sports photographers who depend on speed. Along with a versatile range of RAW and JPEG formats, the **Alpha 1** includes the HEIF (High Efficiency Image File) format for smooth 10-bit gradations that provide more realistic reproduction of skies and portrait subjects where subtle, natural gradation is essential. Images shot on the **Alpha 1** can be trimmed in-camera to a desired aspect ratio, size, or position for versatile usage.

The **Alpha 1** is also compatible with a variety of apps, add-ons and tools. With Imaging Edge Mobile and Imaging Edge Desktop [\[xxx\]](#), professionals can easily transfer RAW files and files that use lossless compression and remotely control Touch Tracking and Touch Focus for convenient AF operation. The Transfer & Tagging add-on (Ver. 1.3 or later) can automatically covert voice memos attached to image files to text captions or transfer the files to an FTP server from a mobile device. Desktop applications Catalyst Browse/Catalyst Prepare^{xxvi} allow professionals to browse and manage video clips shot by

Sony's camera. In addition, the Remote Camera Tool[\[xxxii\]](#) can remotely change camera settings and shoot from a computer connected via LAN cable and feature a number of refinements for the **Alpha 1**: faster transfer, touch response, dual slot and HEIF support, and more.

Reliable and Easy Operability

Professional users need more than just refined features and performance. They also need the reliability and durability demanded of any professional tool. 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 for higher overall capacity and faster read/write speeds. It also features a durable magnesium alloy chassis, long battery life with the Z-battery which can be extended using the optional VG-C4EM Vertical Grip (sold separately), an improved dust removal feature, shutter close function on power-off to protect image sensor, plus dust and moisture resistance[\[xxxiii\]](#) that maximises reliability in challenging environments. It includes a durable, reliable HDMI Type-A connector, and USB PD (Power Delivery) support, allowing higher power to be supplied from an external source so that users can record for extended periods with minimal internal battery usage.

A revised menu structure provides easier navigation, and touch-responsive menu operation offers fast, more intuitive control with Touch Focus and Touch Tracking on its 3.0 type 1.44 million-dot (approx.) LCD monitor. For easy customisation, a subset of the camera's shooting settings now changes according to the selected shooting mode, making it easier than ever to use different aperture, shutter speed and other settings for shooting stills and movies.

Pricing and Availability

The **Alpha 1** Full-frame Interchangeable-Lens Camera will be available in Europe in March 2021 for approximately €7,300 EUR.

Exclusive stories and exciting new content shot with the new camera and Sony's other imaging products can be found at www.alphauniverse.co.uk, a site created to educate and inspire all fans and customers of Sony ☒ - Alpha brand cameras.

For detailed coverage on the new product on Alpha Universe, please visit this [LINK](#).

[\[i\]](#) Compared to the BIONZ X imaging processing engine.

[\[ii\]](#) “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 or Lossless compressed RAW.

[\[iii\]](#) At shutter speeds of 1/125 sec. or higher. The number of AF calculations will depend on the lens used.

[\[iv\]](#) As of January 2021, Sony survey. Among full-frame mirrorless cameras.

[\[v\]](#) As of January 2021, Sony survey. Among full-frame interchangeable-lens digital still cameras.

[\[vi\]](#) Up to 1/200 sec. Synchronization via the sync terminal is not available for electronic shutter.

[\[vii\]](#) [APS-C S35 Shooting] is fixed [Off] when shooting 4K 120p and 8K movies.

[\[viii\]](#) 10% image crop.

[\[ix\]](#) Sony internal tests.

[\[x\]](#) When recording with S-Log3. Sony internal tests.

[\[xi\]](#) Still images only.

[\[xii\]](#) CIPA standards. Pitch/yaw shake only. Planar T* FE 50mm F1.4 ZA lens. Long exposure NR off.

[xiii] As of January 2021, Sony survey. Among interchangeable-lens digital still cameras.

[xiv] Field of view is fixed at 33° and resolution is UXGA when selecting frame rate at 240 fps.

[xv] 3.5 times faster when compared against the Alpha 9 II.

[xvi] “Hi+” continuous shooting mode, compressed RAW, CFexpress Type A memory card. Sony tests.

[xvii] “Hi+” continuous shooting mode, CFexpress Type A memory card. Sony tests.

[xviii] At 20 frames per second, users can shoot up to 238 full-frame compressed RAW images or 400 full-frame JPEG images.

[xix] 50mm lens, infinity, -1m-1 diopter.

[xx] Accurate focus may not be achieved with certain subjects in certain situations.

[xxi] Shutter speed slower than 0.5 sec. cannot be set while continuous shooting. Tracking performance and max. aperture differs by settings and lenses.

[xxii] Up to 1/200 sec. Synchronization via the sync terminal is not available for electronic shutter.

[xxiii] Post-production editing and S&Q mode recording required. Data must be recorded to a CFexpress Type A memory card when the frame rate is 120 (100) fps or higher.

[xxiv] Sony internal tests with [Auto Power OFF Temp.] set to [High].

[xxv] Active Mode is not available for 8K recording.

[xxvi] Catalyst Browse™ version 2020.1 or later, Catalyst Prepare version 2020.1 or later are required.

[xxvii] 8K is not applicable.

[xxviii] Compatible recorders to be announced.

[xxix] 5 GHz communication may be restricted in some countries and regions.

[xxx] The Imaging Edge (Remote/Viewer/Edit) desktop application Ver. 3.1 or later is required for compositing.

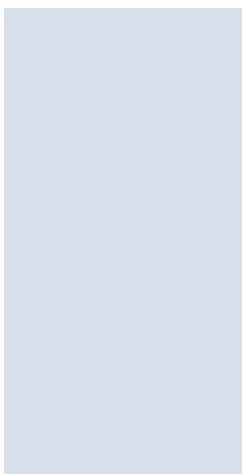
[xxxi] Remote Camera Tool version 2.3 or later is required.

[xxxii] Not guaranteed to be 100% dust and water resistant.

About Sony Corporation

Sony Corporation is a creative entertainment company with a solid foundation of technology. From game and network services to music, pictures, electronics, semiconductors and financial services - Sony's purpose is to fill the world with emotion through the power of creativity and technology. For more information, visit: <http://www.sony.net/>

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