

# ILCE1M2B

## Alpha 1 II - Full-frame Mirrorless Interchangeable Lens Camera

The α1 II gives users everything they need to achieve a higher capture success rate and more, including 50MP high resolution, AI-based subject recognition AF, high-speed continuous shooting, and an advanced workflow from capture to delivery that provides professionals with unrivalled efficiency and freedom



### Bullets

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- A fusion of leading technologies delivers overwhelming performance
  - Advanced AI processing unit achieves high-level subject recognition
  - Human eye recognition improved by up to approximately 30%<sup>6</sup>
  - A wide variety of subjects accurately recognized<sup>7</sup>
  - AF tracking response settable to match subject speed changes
  - Flexible focus area settings
  - Selectable release time lag
  - High-speed continuous shooting at full 50.1 MP<sup>1</sup> resolution
  - Pre-Capture and Continuous Shooting Speed Boost
  - Stunning resolution with 50.1 megapixels<sup>1</sup>
  - Selectable RAW image size and quality
  - High sensitivity, low noise, and wide dynamic range
  - Consistently accurate exposure and color
  - Optical 5-axis image stabilization achieves 8.5-step performance at the center<sup>3</sup>
  - Composite RAW modes for lower noise and higher resolution
  - Real-time Recognition AF for movies
  - High-resolution 8K<sup>22</sup> /4K recording for impressive realism
  - High frame rate recording at up to 120p<sup>4</sup>
  - Better S-Log matching with Cinema Line cameras
  - Dynamic active Mode stabilization<sup>27,28,29</sup>
  - Auto Framing automatically adjusts composition for the subject
  - Framing Stabilizer automatically maintains subject position
  - Breathing compensation<sup>30</sup>
  - Features for smooth focusing
  - Flexible LCD monitor positioning
  - Advanced ergonomic grip
  - High-performance electronic viewfinder
  - Standard and deep viewfinder eyecups provided
  - Supplied charger charges two NP-FZ100 batteries in 155 minutes<sup>40</sup>
  - Dual slots support CFexpress Type A memory cards
  - Image playback functions that support immediate-delivery workflows
  - Dedicated microphone for clear voice memos
  - IPTC metadata embedding and presets
  - Efficient data transfer by high-speed 2.5GBASE-T wired LAN and wireless LAN
  - Tools that support professional workflow
  - Creators' Cloud platform
  - Greater accessibility for all users

### Features

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#### A fusion of leading technologies delivers overwhelming performance

The massive volume of data from the 50.1 megapixel<sup>1</sup> full-frame Exmor RS™ image sensor is processed in real time by Sony's BIONZ XR™ image processing engine. An advanced AI processing unit applies high-level subject recognition to reliably recognize a wide range of subjects. These state-of-the-art technologies make it easy to capture even the most challenging subjects in extraordinary resolution, with blackout-free viewing and full AF/AE tracking at up to 30 fps.<sup>2</sup>

#### An advanced AI processing unit achieves high-level subject recognition

The α1 II features a dedicated AI processing unit that helps to recognize people more accurately based on human pose

estimation and supports recognition of a wide range of subjects other than people, such as animals, vehicles and insects<sup>5</sup>, with high accuracy. This results in a dramatic improvement in Real-time Recognition AF and Real-time Tracking capability, and higher overall AF performance.

### **Human eye recognition improved by up to approximately 30%<sup>6</sup>**

Real-time Recognition AF has improved human eye recognition by approximately 30%<sup>6</sup>, and its human pose estimation technology also delivers precise recognition of subjects facing away from the camera, wearing sunglasses, or with the face obscured. Recognition of distant human subjects occupying only a small part of the frame has been notably improved, so approaching subjects are recognized and tracked sooner. Subjects can also be tracked better across occlusions among many people.

### **A wide variety of subjects accurately recognized<sup>7</sup>**

A wider variety of subjects<sup>7</sup> is now recognized for stills and movies, with a new [Auto] mode letting the camera select.<sup>8</sup> Recognition of animals overall is improved by approximately 30%<sup>6</sup>, with eyes of some small animals added, and the eyes, heads and faces of animals like dogs and cats recognized. Recognition of birds is improved by 50%<sup>6</sup>.

### **AF tracking response settable to match subject speed changes**

Fast Hybrid AF combines phase detection and contrast detection for superb speed, precision and tracking performance. 759<sup>10</sup> phase-detection points cover 92% of the image sensor. The AF tracking response for stills can now be selected from [Stable], [Standard], and [Responsive] to suit the likely subject motion, useful for example in bird photography. High AF precision is achieved right down to light levels as low as EV-4.0<sup>11</sup> in AF-S mode, with improved contrast AF response.

### **Flexible focus area settings**

XL and XS focus area spot sizes are now available in addition to the existing L, M, and S. XS can be useful to avoid focusing on foreground objects such as branches. It is also possible to create a custom focus area of specified size and aspect ratio, useful in situations like a track event where athletes are lined up side-by-side and you want to focus on the leading runner.

### **Selectable release time lag**

Selectable release time lag modes are available via the [Release Lag] / [Start Display] menu<sup>16</sup>. With blackout occurring on only the first image in a continuous burst, [Fastest Release/On] provides the shortest possible release time lag, while [Stable Release/On] minimizes variations in release time lag making it easier to release the shutter at the intended moment. The default [Auto/Off] setting gives no blackout when shooting is started.

### **High-speed continuous shooting at full 50.1 MP<sup>1</sup> resolution**

High-speed continuous shooting at up to 30 fps<sup>2</sup> with full AF/AE tracking is possible at a stunning 50.1 MP<sup>1</sup> resolution, with up to 120 AF/AE calculations per second<sup>12</sup> on the data from the image sensor. Blackout-free shooting with no loss of viewfinder image allows seamless framing and capture of the subject as if viewed with the naked eye.

### **Pre-Capture and Continuous Shooting Speed Boost**

Pre-capture retroactively captures moments that occurred before the shutter was released<sup>13,14</sup>, without compromising resolution, even when shooting continuously at up to 30 fps<sup>2</sup> with selectable recording time options. Continuous Shooting Speed Boost can temporarily change the burst speed. Both features reduce the chance of missing that vital instant.

### **Stunning resolution with 50.1 megapixels<sup>1</sup>**

Sony's extensive high-performance G Master line work with the 50.1 megapixel<sup>1</sup> Exmor RS image sensor and BIONZ XR image processing engine to create deep, lifelike, high-resolution rendering. The sensor's high pixel count means that resolution is still a very impressive 21 megapixels (approx.) when shooting in APS-C mode or cropping to APS-C size after shooting.

### **Selectable RAW image size and quality**

Compressed, Uncompressed, and high-compression Lossless compressed RAW still images are provided. Compressed RAW images can be shot continuously at up to 30 fps<sup>2</sup>. Three Lossless compressed RAW image sizes can be selected to suit the application: L, M, and S. Lossless compressed RAW, JPEG, and HEIF images in M and S size have the same number of pixels whether shot in the full-frame or APS-C mode, making it possible to seamlessly switch modes while maintaining the same image resolution. JPEG and RAW sizes can be freely mixed and matched to meet the needs of the application.

### **High sensitivity, low noise, and wide dynamic range**

Feedback from professionals has been taken into account to create noise reduction that is highly effective without sacrificing image detail, so users can shoot clear images of indoor sports at mid to high sensitivity without hesitation. Dynamic range at lower sensitivities is an impressively wide 15 stops<sup>17</sup> for smooth, realistic gradations.

## Consistently accurate exposure and color

Exposure and color reproduction are notably improved compared to the α1. The AE algorithm detects faces and optimizes exposure for stills and movies. Exposure stability has been improved by approximately 20%<sup>18</sup>, even when the face is backlit and dark, or over-illuminated in direct sunlight, or not facing the camera. Working with a “Visible Light and IR Sensor” on the front of the body, the advanced AI processing unit helps to achieve accurate white balance even where the subject is in shade.

## Optical 5-axis image stabilization achieves 8.5-step performance at the center<sup>3</sup>

A high-precision image stabilization unit, advanced gyro sensors, and leading-edge algorithms detect and correct camera shake, achieving a groundbreaking up to 8.5-step effect at the center and 7.0-step at the periphery, and transforming handheld shooting with precision down to the single-pixel level and the finest subject details. With compatible lenses that include built-in stabilization<sup>19</sup>, improved body-lens synchronization provides effective blur control even at otherwise problematic telephoto focal lengths.

## Composite RAW modes for lower noise and higher resolution

The NR Shooting Settings mode captures between 4 and 32 RAW images which can then be composited using Sony’s Imaging Edge Desktop™ application to create a full-resolution image with very low noise even at mid to high sensitivities. Pixel Shift Multi Shooting<sup>20</sup> captures 4 or 16 pixel-shifted images that are later composited with the same PC application to achieve overwhelming resolution<sup>21</sup> in a single image.

## Real-time Recognition AF for movies

Real-time Recognition AF utilizes advanced AI-based human pose estimation technology that recognizes and tracks not just eyes, but body and head position for human subjects with high precision. The range of subjects recognized with AI assistance, for both movies and stills, has been expanded relative to the α1, and now includes birds in movies for example<sup>5</sup>. Other subjects are acquired and tracked in real time by processing color, pattern, and spatial data.

## High-resolution 8K<sup>22</sup> /4K recording for impressive realism

4K (3840 x 2160) movies can be cropped and edited from 8K source footage with overwhelming resolution from 8.6K oversampling. 8K 4:2:2 10-bit XAVC HS recording with optional Full HD proxy is available, as are 4K recording in XAVC HS, S, or S-I formats in full-frame, or Super 35mm size oversampled from 5.8K with full pixel readout and no pixel binning. XAVC S-I allows recording at up to 600 Mbps for outstanding image quality.

## High frame rate recording at up to 120p<sup>4</sup>

4K can be recorded at up to 120p right in the camera. 4K footage can be played back in up to 5x slow motion<sup>23</sup>. The Slow & Quick Motion (S&Q) mode<sup>24</sup> makes it convenient to play recorded footage back at slow or high speed in the camera. Full HD footage recorded at 240 fps offers even greater range: up to 10x slow motion (24p) to create impressive sports movies, for example. The frame rate setup menu allows intuitive selection of frame rates.<sup>25,26</sup>

## Better S-Log matching with Cinema Line cameras

The S-Log3 gamma curve emphasizes gradation characteristics from shadows to mid-grey (18% grey). Minimum ISO when shooting S-Log is 800, while the expanded ISO range is 200 - 640. Compared to the α1, detail reproduction has been improved and footage can be more easily matched with the output from digital cinema cameras that also offer S-Log3 such as Sony’s VENICE and BURANO. The ability to import User LUTs into the camera makes it easy to get an idea of the final post-edit look right in the camera.

## Dynamic active Mode stabilization<sup>27,28,29</sup>

In addition to standard mode, Active Mode combines a precision image stabilization unit and gyro sensor, while Dynamic active Mode adds electronic stabilization for an additional approximately 30%<sup>18,27,28,29</sup>, enabling stable recording even when the user is jogging.

## Auto Framing automatically adjusts composition for the subject

Using AI-based subject recognition technology, Auto Framing<sup>33</sup> automatically crops the frame to keep the subject in a prominent position when shooting movies. The framing is continually adjusted so that the recorded footage looks like the subject was being followed by an experienced camera operator. The timing at which Auto Framing begins, the size of the subject in the frame, and the tracking speed can be controlled. Auto Framing can be ideal for recording interviews, music performance, cooking, and much more.

## Framing Stabilizer automatically maintains subject position

Framing Stabilizer<sup>33</sup> automatically maintains subject location within the frame when the camera operator is moving alongside the subject or in other situations where maintaining consistent framing can be difficult. AI-based subject recognition and Dynamic active Mode image stabilization maintain the composition and achieve stable imagery even when shooting handheld. [Center]

mode automatically keeps the subject in the center of the frame, while [Manual] mode lets subject position be freely specified.

### **Breathing compensation for consistent angle of view when focusing<sup>30</sup>**

Focus breathing compensation effectively reduces focus breathing when shooting movies. Sony's original Clear Image Zoom technology is used to automatically maintain a consistent angle of view throughout focus changes for more stable images.

### **Features for smooth focusing**

A range of focusing tools support intuitive and professional movie making. AF Assist<sup>31</sup> for temporary switching to manual focus, focus peaking display, and AF transition speed and sensitivity settings all help the user when shooting movies. Focus Map overlays a visual depth-of-field map on the live view display. Real-time Recognition AF, Real-time Tracking, and Focus Area are now available during digital zoom and Clear Image Zoom operation<sup>32</sup>.

### **Flexible LCD monitor positioning**

The 4-axis multi-angle monitor can be positioned for optimal viewing in horizontal or vertical orientation. The extended monitor can be tilted upward by approximately 98° and downward by approximately 40° to the camera back, and sideways by a full 180°. The hinge is unobtrusive but robust<sup>34</sup>. The large 3.2 type 2.1 million dot display panel is touch sensitive, has a wide color gamut, and is designed for clear outdoor viewing.

### **Advanced grip hold and ease of use**

The improved grip ergonomics ensure comfortable and stable shooting over long sessions with a shape that allows firm holding in the palm of the hand. A C5 custom button has also been added, and the grip design is replicated for prolonged vertical shooting with the optional VG-C5 Vertical Grip<sup>38</sup>, which additionally offers extended battery life over the previous model.

### **High-performance electronic viewfinder**

A 9.44 million-dot (approx.) electronic viewfinder with high-definition OLED display and refined optics delivers clear viewing. Magnification is 0.90x<sup>35</sup> with a 41° FOV for a clear, wide view, the updated structure giving a 25 mm high eyepoint<sup>36</sup>. Time lag has been reduced for more stable framing. The finder frame rate for shooting stills can be set to [Standard] (60 fps), [High] (120 fps), or [Higher] (240 fps)<sup>37</sup>. Overall image quality has been significantly improved and aberration minimized.

### **Standard and deep viewfinder eyecups provided**

The α1 II is supplied with two viewfinder eyecups: the standard FDA-EP19 type and a deep FDA-EP21 type that the user can choose according to ambient conditions or personal preference. The new FDA-EP21 design is deeper than the standard FDA-EP19 type, enhancing viewing clarity by effectively blocking extraneous light that can enter between the eye and eyecup in bright shooting environments. The soft, close-fitting material and design enhance viewing comfort.

### **Supplied charger charges two NP-FZ100 batteries in 155 minutes<sup>40</sup>**

The supplied BC-ZD1 quick charger can simultaneously charge two NP-FZ100 batteries in approximately 155 minutes<sup>39</sup>, when used with an AC adaptor providing USB PD (Power Delivery) power. This charger is ideal for charging two batteries for use at events or in other applications that require continuous operation over extended periods of time.

### **Dual slots support CFexpress Type A memory cards**

The α1 II has two media slots that both support CFexpress Type A memory cards as well as UHS-I and UHS-II SD cards. CFexpress Type A cards are ideal for recording the huge volume of data produced by the image sensor, allowing 30 fps<sup>2</sup> continuous still shooting and high bitrate 8K and 4K movie recording. The same data can be simultaneously recorded to both cards, or files can be separated by type and size. A "relay" mode automatically switches recording to the second card when the first becomes full.

### **Image playback functions that support immediate-delivery workflows**

Multiple media playback lets you seamlessly display all images on two memory cards by selecting all slots as the display target during playback. Group display of images such as those shot continuously or with interval shooting is also supported. And if set in advance, a rating can automatically be applied to the first image in continuous burst or Pre-Capture groups, or a divider image inserted before the first image in groups, enabling quick scrolling through and location of groups using the custom dial during playback.

### **Dedicated microphone for clear voice memos**

A dedicated voice memo microphone is built into the rear panel, making it easy to record clear voice memos even in noisy environments. These can be transferred to an FTP server along with the corresponding images, allowing the photographer to communicate effectively to the editor, or the Transfer & Tagging mobile application can be used to convert the voice memos to text prior to transfer<sup>40</sup>. Either approach can significantly speed up the delivery workflow.

### **IPTC metadata embedding and presets**

IPTC (International Press Telecommunications Council) metadata can be added to still images. IPTC information can be written to IPTC metadata presets and loaded into the camera via a memory card. The  $\alpha$ 1 II can internally store up to 20 presets that can then be quickly selected when needed. This can be extremely useful at multi-sports events, for example, where different IPTC information is required for different competitions. The appropriate preset can be easily selected in-camera.

### Efficient data transfer by high-speed wired LAN and wireless LAN

Still image and movie files can be directly transferred from the camera to a specified remote FTP server via wired and wireless LAN. 2.5GBASE-T wired LAN connectivity allowing data transfer at up to 2.5 Gbps is now provided for stable, high-speed transfer of still and movie data from the camera to an FTP server and stable communication for PC Remote shooting. Built-in Wi-Fi (IEEE 802.11a/b/g/n/ac) with 2x2 MIMO support allows high-speed 5 GHz<sup>41</sup> wireless communication with maximum speed and stability for news and sports shooters who need to deliver immediately via FTP, as well as for studio environments.

### Tools that support professional workflow

The  $\alpha$ 1 II is compatible with Transfer & Tagging and Remote Camera Tools. Transfer & Tagging is a smartphone application<sup>42</sup> that can speed up still-image workflows for professional sports and news photographers, allowing background FTP transfers to smartphone as well as fast tag/caption attachment, while Remote Camera Tool is a software application that allows PC Remote (tethered) shooting via wired LAN.

### Creators' Cloud platform

Creators' Cloud is a platform that supports creative work from shooting to production by combining Sony's advanced camera technology and the cloud. It's also a place for discovery and collaboration with other creators around the world. Explore web, mobile, and PC-based apps providing efficient solutions that integrate cameras with shooting and production apps and services.

### Greater accessibility for all users

Accessibility features such as Screen Reader<sup>43</sup> that reads menu screen text aloud, Enlarged Menu Display, and others make it easier for everyone to enjoy shooting and playback using the  $\alpha$ 1 II. Furthermore, advanced features like AI-based Real-time Recognition AF for a wide range of subjects, intuitive touch operation for subject tracking, and many more make the joys of photography and moviemaking available to the widest possible range of users.

## Specification

Accessibility	
Functions	<ul style="list-style-type: none"> <li>Screen Reader</li> <li>Focus Magnifier</li> <li>Focus Map (Movie)</li> <li>Peaking Display</li> <li>Subject Recognition in AF</li> <li>Touch Focus</li> <li>Touch Tracking</li> <li>Touch Shutter</li> <li>Touch AE</li> <li>Multi-angle LCD screen</li> <li>Custom function</li> <li>Enlarge Menu Screen</li> </ul>
Audio	
Microphone	<ul style="list-style-type: none"> <li>Built-in, stereo</li> <li>Built-in, voice memo</li> </ul>
Speaker	Built-in, monaural
Camera Section	
Type	35mm full frame (35.9 x 24.0 mm), Exmor RS CMOS sensor
Number of pixels (effective)	<ul style="list-style-type: none"> <li>Still images: Approx. 50.1 megapixels max.</li> <li>Movies: Approx. 42.0 megapixels max.</li> </ul>
Number of pixels (total)	Approx. 50.5 megapixels
Color temperature range	2500 K - 9900 K
Anti-Dust function	Yes
Clear Image Zoom	
Still images	Approx. 2x

Movies	Approx. 1.5x (4K), Approx. 2x (HD)
<b>Dimensions</b>	
Dimensions (W x H x D)	Approx. 136.1 x 96.9 x 82.9 mm, Approx. 136.1 x 96.9 x 72.8 mm (FROM GRIP TO MONITOR)
Dimensions (W x H x D) (in.)	Approx. 5 3/8 x 3 7/8 x 3 3/8 inches, Approx. 5 3/8 x 3 7/8 x 2 7/8 inches (FROM GRIP TO MONITOR)
<b>Drive</b>	
Continuous Drive Speed (approx. max.)	AUTO/Electronic shutter: Hi+: 30 fps Mechanical shutter: Hi+: 10 fps
No. of recordable frames (approx.)	JPEG Extra fine L: 190 frames JPEG Fine L: 400 frames JPEG Extra fine L: 400 frames RAW: 240 frames RAW & JPEG: 200 frames RAW (Uncompressed): 84 frames RAW (Uncompressed) & JPEG: 80 frames RAW (Lossless Compressed): 100 frames RAW (Lossless Compressed) & JPEG: 86 frames
Pixel Shift Multi Shooting	Yes (4 shots / 16 shots) *Images shot in Pixel Shift Multi Shooting mode can be processed using a dedicated imaging software by Sony.
<b>Exposure Control</b>	
Anti-Flicker Shoot.	Yes
Exposure Compensation	+/- 5.0 EV (1/3 EV, 1/2 EV steps selectable)
Exposure Modes	AUTO(iAuto), Programmed AE (P), Aperture priority (A), Shutter-speed priority (S), Manual (M), Movie (Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M) / Flexible Exp. Mode), Slow & Quick Motion (Programmed AE (P) / Aperture priority (A) / Shutter-speed priority (S) / Manual (M) / Flexible Exp. Mode)
ISO Sensitivity (Recommended Exposure Index)	Still images: ISO 100 - 32000 (expandable to ISO 50 - 102400), AUTO (ISO 100 - 12800, selectable lower limit and upper limit) Movies: ISO 100 - 32000 equivalent, AUTO (ISO 100 - 12800, selectable lower limit and upper limit)
Metering Sensitivity	EV-3 to EV20 (ISO100 equivalent with F2.0 lens attached)
Metering Type	1200-zone evaluative metering
<b>Flash</b>	
Type	-
Control	Pre-flash TTL
Flash Compensation	+/- 3.0 EV (switchable between 1/3 and 1/2 EV steps)
External Flash Compatibility	Sony $\alpha$ System Flash compatible with Multi Interface Shoe, attach the shoe adaptor for flash compatible with Auto-lock accessory shoe
<b>Focus System</b>	
AF Illuminator	Yes (with built-in LED type)
Focus Point	Still images: Max. 759 points (phase-detection AF) Movies: Max. 759 points (phase-detection AF)
Focus Sensitivity Range	EV-4 to EV20 (ISO100 equivalent with F2.0 lens attached in AF-S)
Focus Type	Fast Hybrid AF (phase-detection AF / contrast-detection AF)
Recognition target (Still images)	Auto Human Animal Bird Insect

	Car Train Airplane
Other Features	AF Level for Crossing (Still) AF Track for Speed Change (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)
Recognition target (Movies)	Auto Human Animal Bird Insect Car Train Airplane
<b>General</b>	
Lens Mount	E-mount
Camera type	Interchangeable lens digital camera
<b>Image Stabilization</b>	
Compensation Effect (still images)	Center 8.5 stops and Periphery 7.0 stops (based on CIPA2024 standard. Pitch/Yaw/Roll compensation. With FE 50mm F1.2 GM lens mounted. Long exposure NR off.)
Mode	Still images: On / Off Movie: Dynamic active / Active / Standard / Off
Type	Image sensor-shift mechanism with 5-axis compensation (compensation depends on lens specifications)
<b>Interface</b>	
Bluetooth®	Yes (Bluetooth Standard Ver. 5.0 (2.4 GHz band))
Functions	FTP Transfer Func. (Wired LAN, USB Tethering, Wi-Fi) Send to smartphone Remote control via smartphone Remote Shooting
Headphone Terminal	Yes (3.5 mm Stereo minijack)
LAN Terminal	Yes (2.5GBASE-T, 1000BASE-T, 100BASE-TX)
Mic Terminal	Yes (3.5 mm Stereo minijack)
Multi Interface Shoe	Yes (with Digital Audio Interface)
Multi/Micro USB Terminal	Yes
PC Interface	Mass-storage / MTP
Sync terminal	Yes
USB Type-C® Terminal	Yes (SuperSpeed USB 10 Gbps (USB 3.2) compatible)
Wireless LAN (Built-In)	Yes (Wi-Fi Compatible, IEEE 802.11a/b/g/n/ac (2.4 GHz band/5 GHz band))  *(Configuration method/Access method) WPS or manually /infrastructure mode. When connecting to smartphones, the camera can always work as a base without a wireless access point. (Security: WEP/WPA-PSK/WPA2-PSK/WPA3-SAE) **Models sold in some countries/regions support IEEE 802.11b/g/n (2.4GHz) wireless LAN only.
Remote Control (Wireless)	Yes (Bluetooth remote control)
	HDMI connector (Type-A) 3840 x 2160 (59.94p / 50p / 29.97p / 25p / 23.98p) / 1920 x 1080 (59.94p / 50p / 23.98p)

HDMI output	/ 1920 x 1080 (59.94i / 50i), YCbCr 4:2:2 10bit / RGB 8bit 7680 x 4320 (29.97p / 25p / 23.98p), YCbCr 4:2:0 8bit / RGB 8Bit 4332x2446 (59.94p / 50p / 29.97p / 25p / 23.98p) , Raw 16bit
NFC	-
<b>LCD Screen</b>	
Adjustable Angle	Opening Angles (approx.): Up 98 °, down 40 °, side 180 °, rotation 270 °
Number of Dots	2 095 104 dots
Touch Panel	Yes
<b>LCD screen</b>	
Type	8.0 cm (3.2-type) type TFT
<b>Lens Compensation</b>	
Setting	Shading, Chromatic Aberration, Distortion, Breathing (Movie)
<b>Movie Function</b>	
Slow & Quick Motion (S&Q)	Yes
Proxy recording	Yes
TC/UB	Yes
RAW Output	Yes (HDMI)
<b>Movie recording format (XAVC HS 4K)</b>	
3840 x 2160 (4:2:0, 10bit) (Approx.)	119.88p (200 Mbps) 100p (200 Mbps) 59.94p (150 Mbps / 75 Mbps / 45 Mbps) 50p (150 Mbps / 75 Mbps / 45 Mbps) 23.98p (100 Mbps / 50 Mbps / 30 Mbps)
3840 x 2160 (4:2:2, 10bit) (Approx.)	119.88p (280 Mbps) 100p (280 Mbps) 59.94p (200 Mbps / 100 Mbps) 50p (200 Mbps / 100 Mbps) 23.98p (100 Mbps / 50 Mbps)
<b>Movie recording format (XAVC HS 8K)</b>	
7680 x 4320 (4:2:0, 10bit) (Approx.)	29.97p (400 Mbps / 200 Mbps) 25p (400 Mbps / 200 Mbps) 23.98p (400 Mbps / 200 Mbps)
7680 x 4320 (4:2:2, 10bit) (Approx.)	29.97p (520 Mbps / 260 Mbps) 25p (520 Mbps / 260 Mbps) 23.98p (520 Mbps / 260 Mbps)
<b>Movie recording format (XAVC S 4K)</b>	
3840 x 2160 (4:2:0, 8bit) (Approx.)	119.88p (200 Mbps) 100p (200 Mbps) 59.94p (150 Mbps) 50p (150 Mbps) 29.97p (100 Mbps / 60 Mbps) 25p (100 Mbps / 60 Mbps) 23.98p (100 Mbps / 60 Mbps)
3840 x 2160 (4:2:2, 10bit) (Approx.)	119.88p (280 Mbps) 100p (280 Mbps) 59.94p (200 Mbps) 50p (200 Mbps) 29.97p (140 Mbps) 25p (140 Mbps) 23.98p (100 Mbps)

## Movie recording format (XAVC S HD)

1920 x 1080 (4:2:0, 8bit) (Approx.)	119.88p (100 Mbps / 60 Mbps) 100p (100 Mbps / 60 Mbps) 59.94p (50 Mbps / 25 Mbps) 50p (50 Mbps / 25 Mbps) 29.97p (50 Mbps / 16 Mbps) 25p (50 Mbps / 16 Mbps) 23.98p (50 Mbps)
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1920 x 1080 (4:2:2, 10bit) (Approx.)	59.94p (50 Mbps) 50p (50 Mbps) 29.97p (50 Mbps) 25p (50 Mbps) 23.98p (50 Mbps)
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## Movie recording format (XAVC S-I 4K)

3840 x 2160 (4:2:2, 10bit) (Approx.)	59.94p (600 Mbps) 50p (500 Mbps) 29.97p (300 Mbps) 25p (250 Mbps) 23.98p (240 Mbps)
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## Movie recording format (XAVC S-I HD)

1920 x 1080 (4:2:2, 10bit) (Approx.)	59.94p (222 Mbps) 50p (185 Mbps) 29.97p (111 Mbps) 25p (93 Mbps) 23.98p (89 Mbps)
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## Network Streaming

Video Data Format	MPEG-4 AVC/H.264 MPEG-H HEVC/H.265
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Video Resolution	3840 x 2160 (30p) 3840 x 2160 (25p) 2560 x 1440 (30p) 2560 x 1440 (25p) 1920 x 1080 (30p / 60p) 1920 x 1080 (25p / 50p) 1280 x 720 (30p / 60p) 1280 x 720 (25p / 50p)
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Audio Data Format	AAC-LC 2ch (16bit 48 kHz)
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Protocol	RTMP RTMPS SRT
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## Operating Temperature

Operating Temperature	0 - 40 °C / 32 - 104 °F
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## Other Features

Other Features	Soft Skin Effect Creative Look Custom function Picture Profile Time-lapse Auto Framing Pre-Capture Continuous Shooting Speed Boost NR Shooting Framing Stabilizer
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## Playback

Modes	Enlarged display mode Protect Rating Shot Mark (Movie) Divider Frame Crop Photo Capture
<b>Power</b>	
Battery Life (Movie, actual recording)	Approx. 85 min (Viewfinder) / Approx. 90 min (LCD monitor) (CIPA standard)
Battery Life (Movie, continuous recording)	Approx. 140 min (Viewfinder) / Approx. 150 min (LCD monitor) (CIPA standard)
Battery Life (Still Images)	Approx. 420 shots (Viewfinder) / Approx. 520 shots (LCD monitor) (CIPA standard)
Internal Battery Charge	Yes (Available with USB Type-C Terminal. USB Power Delivery support)
Supplied Battery	One rechargeable battery pack NP-FZ100
USB Power Supply	Yes (Available with USB Type-C Terminal. USB Power Delivery support)
<b>Power Consumption</b>	
Power Consumption with Viewfinder	Still images: Approx. 4.7 W (with FE 28-70mm F3.5-5.6 OSS lens attached) Movies: Approx. 7.0 W (with FE 28-70mm F3.5-5.6 OSS lens attached)
Power Consumption with LCD screen	Still images: Approx. 3.8 W (with FE 28-70mm F3.5-5.6 OSS lens attached) Movies: Approx. 6.6 W (with FE 28-70mm F3.5-5.6 OSS lens attached)
<b>Recording System</b>	
Memory Card Slot	SLOT1: Multi slot for SD (UHS-I/II compliant) memory card / CFexpress Type A card, SLOT2: Multi slot for SD (UHS-I/II compliant) memory card / CFexpress Type A card
<b>Recording System (movie)</b>	
Video Compression	XAVC S: MPEG-4 AVC/H.264 XAVC HS: MPEG-H HEVC/H.265
Audio Recording Format	LPCM 2ch (48 kHz 16 bit), LPCM 2ch (48 kHz 24 bit), LPCM 4ch (48 kHz 24 bit) * When using accessories that support 4ch output / 24 bits with the Multi Interface Shoe.
<b>Recording System (still image)</b>	
Recording Format	JPEG (DCF Ver. 2.0, Exif Ver. 2.32, MPF Baseline compliant), HEIF (MPEG-A MIAF compliant), RAW (Sony ARW 5.0 format compliant)
Image Size (pixels) [3:2]	35mm full frame L: 8640 x 5760 (50 M), M: 5616 x 3744 (21 M), S: 4320 x 2880 (12 M)
Image Quality Modes	RAW JPEG HEIF (4:2:0 / 4:2:2) RAW & JPEG RAW & HEIF
RAW Output	14bit RAW: Yes
<b>Shutter</b>	
Electronic Front Curtain Shutter	Yes
Shutter Speed	Still images (Electronic shutter): 1/32000 to 30 s Still images (Mechanical shutter): 1/8000 to 30 s, Bulb Movies: 1/8000 to 1 s
Shutter Type	Auto / Mechanical shutter / Electronic shutter
Flash Sync. Speed	1/400 s (35mm full frame), 1/500 s (APS-C)
<b>USB Streaming</b>	
Video Data Format	MJPEG YUV420
	3840 x 2160 (15p / 30p)

Video Resolution	3840 x 2160 (12.5p / 25p) 1920 x 1080 (30p / 60p) 1920 x 1080 (25p / 50p) 1280 x 720 (30p) 1280 x 720 (25p)
Audio Data Format	LPCM 2ch (16bit 48 kHz)
<b>Viewfinder</b>	
Diopter Adjustment	-4.0 to +3.0 m <sup>-1</sup>
Eye Point	Approx. 25 mm from the eyepiece lens, 21 mm from the eyepiece frame at -1 m <sup>-1</sup> (CIPA standard)
Finder Frame Rate Selection	NTSC mode: STD 60fps / HI 120fps / HIGHER 240fps, PAL mode: STD 50fps / HI 100fps / HIGHER 200fps *When [Finder Frame Rate] is set to [HI+], [Standard] is not available in [Viewfinder Magnification].
Magnification	Approx. 0.90x (with 50 mm lens at infinity, -1 m <sup>-1</sup> )
Number of Dots	9 437 184 dots
Type	1.6 cm (0.64 type) electronic viewfinder (Quad-XGA OLED)
<b>Weight</b>	
With Battery and Memory Card	Approx. 743 g
With Battery and Memory Card (oz.)	Approx. 1 lb 10.3 oz
Body Only	Approx. 658 g
Body Only (oz.)	Approx. 1 lb 7.3 oz
<b>What's in the Box</b>	
Supplied Accessories	Rechargeable Battery NP-FZ100 Battery Charger BC-ZD1 Cable Protector Shoulder strap Body cap Accessory shoe cap Eyepiece cup (FDA-EP19) Eyepiece cup (FDA-EP21)

1. Approximate, effective.
2. When using electronic shutter. Sony test conditions. Maximum continuous frame rate may be lower in some shooting conditions. Continuous shooting speed may vary depending on the lens used in AF-C focus modes. Visit Sony's support web page for lens compatibility information.
3. CIPA 2024 standards. Pitch/Yaw/Roll compensation. FE 50mm F1.2 GM lens. Long exposure NR off.
4. With approx. 10% image crop. When recording 4K 120p/100p or 8K movies, [APS-C S35 Shooting] is fixed [Off]. 35mm full-frame lenses are recommended.
5. Available subject settings are: Auto, Human, Animal/Bird, Animal, Bird, Insect, Car/Train, and Airplane. Subject types other than the type specified may be erroneously recognized in some cases.
6. Compared to the α1. Sony tests.
7. Available subject settings are: Auto, Human, Animal/Bird, Animal, Bird, Insect, Car/Train, and Airplane. Subject types other than the type specified may be erroneously recognized in some cases.
8. When Auto is selected the camera will normally recognize the subject type automatically, but the wrong type may be selected in some situations. In such cases manually selecting the intended subject type may solve the problem.
9. [Tracking] in the menu.
10. For still images. The number of points varies according to the shooting mode.
11. ISO 100 equivalent, F2.0 lens.
12. At shutter speeds of 1/125 sec. or higher. May be less depending on shooting conditions and the lens used.
13. Maximum pre-capture time may be less in some situations.
14. High continuous shooting speeds can cause an increase in camera temperature. Pre-capture may be limited to protect the device in high ambient temperature conditions.
15. Recording to Sony CEA-G160T CFexpress Type A memory card (sold separately). Sony tests.
16. When using electronic shutter.
17. When shooting stills. Sony test conditions.
18. Sony tests.
19. See Sony's support web page for information on compatible lenses: <https://www.sony.net/dics/fnc1002/> A software update may be required for some lenses. Stabilization may vary according to the lens used.
20. The Imaging Edge Desktop™ Viewer and Edit applications are required for compositing. Image compositing may not be successful if camera or subject movement causes blur. The use of a tripod is recommended, as is the use of PC tethered control or a remote commander. Uncompressed RAW and electronic shutter are automatically selected for Pixel Shift Multi Shooting. Some restrictions apply to flash and other devices.
21. Four 49.7-megapixel images provide approx. 199 million pixels, and sixteen 49.7-megapixel images provide approx. 796 million pixels. Image size after

- compositing is approx. 49.7 million (8640 x 5760) pixels for 4-image shots, and approx. 199 million pixels (17280 x 11520) for 16-image shots.
22. When recording 4K 120p/100p or 8K movies, [APS-C S35 Shooting] is fixed [Off]. 35mm full-frame lenses are recommended. HDMI output format is limited to 4:2:0 8bit.
  23. Post-production editing and S&Q mode recording are required.
  24. Audio recording not available in S&Q mode.
  25. Recording frame rates are listed as integer values, but the actual frame rates are as follows: 24p = 23.98 fps, 30p = 29.97 fps, 60p = 59.94 fps, and 120p = 119.88 fps.
  26. Data must be recorded to a CFexpress Type A memory card when recording XAVC S-I at 120 fps / 100 fps or higher.
  27. Active Mode and Dynamic active Mode are not available when shooting at frame rates of 120 fps or higher.
  28. Angle of view is reduced in Active Mode. In Dynamic active Mode angle of view is reduced more than in Active Mode.
  29. Clear Image Zoom is not available when using Dynamic active Mode.
  30. Compatible lenses are listed at: <https://www.sony.net/dics/breathing/>
  31. Not available in the following conditions: when Focus Magnification is active, during digital zoom, during USB streaming, when no lens is mounted, when an A-mount lens is mounted, or when a lens that is not compatible with focal plane phase-detection AF is mounted.
  32. Movie and S&Q modes only.
  33. Only available for movies. Framing is cropped from 4K images, resulting in reduced angle of view.
  34. Do not apply excessive force when opening or rotating the monitor.
  35. 50mm lens, infinity, -1m-1 diopter.
  36. Distance from last optical surface, -1m-1 diopter (CIPA standard)
  37. When [Finder Frame Rate] is set to [Higher], viewfinder resolution and display magnification are reduced. When [Finder Frame Rate] is set to [Higher], [Display Quality] is locked to [Standard].
  38. Sold separately. Please refer to: <https://www.sony.co.uk/electronics/interchangeable-lens-cameras-vertical-grips/vg-c5>
  39. One NP-FZ100 battery is supplied with the camera. USB PD compatible power supply and USB cable are not included. Simultaneous two-battery charging requires a USB PD compatible power supply that can deliver 30 watts or higher. Single-battery charging requires a USB PD compatible power supply that can deliver 18 watts or higher. A USB cable that can handle 3 amps or more is required in both cases. Charge time may vary according to use conditions.
  40. When Google service is available.
  41. 5 GHz communication may be restricted in some countries and regions.
  42. For details, please refer to: <https://www.sony.net/ttad/>
  43. Availability varies depending on region and language.

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