

ILCE-7R/B

α7R (Alpha 7R) Interchangeable Lens Camera

No other full frame, interchangeable-lens camera is this light or this portable. 36MP of rich detail. A true-to-life 2.4 million dot OLED viewfinder. Wi-Fi® sharing and an expandable shoe system. It's all the full-frame performance you ever wanted in a compact size that will change your perspective entirely.



Key Features

World's smallest lightest¹ interchangeable lens full-frame camera

Sony's Exmor image sensor takes full advantage of the Full-frame format, but in a camera body less than half the size and weight of traditional full-frame DSLRs

Ultimate full frame 36.3 MP resolution with gapless sensor lens design

The unrivaled 36.3-effective-megapixel resolution and outstanding optical lens performance are optimized by removing the optical low-pass filter. In combination with the new BIONZ X image processing engine, this design enhances the reproduction of the finest of details. In addition, the sensor includes a new gapless lens design that fills the space between neighboring pixels to significantly increase light collecting efficiency and realize high corner-to-corner image quality.

Fast Intelligent AF for responsive, accurate, and greater operability with full frame sensor

The high-speed image processing engine and improved algorithms combine with optimized image sensor read-out speed to achieve ultra-high-speed AF despite the use of a full-frame sensor.

New Eye AF control

Even when capturing a subject partially turned away from the camera with a shallow depth of field, the face will be sharply focused thanks to extremely accurate eye detection that can prioritize a single pupil. A green frame appears over the prioritized eye when focus has been achieved for easy confirmation. Eye AF can be used when the function is assigned to a customizable button, allowing users to instantly activate it depending on the scene.

Compatible with Sony's E-mount lens system and new full-frame lenses

To take advantage of the lightweight on-the-go body, the α7R is compatible with Sony's E-mount lens system and expanded line of E-mount compact and lightweight full-frame lenses from Carl Zeiss and Sony's premier G-series.

Direct access interface for fast, intuitive shooting control

Quick Navi Pro displays all major shooting options on the LCD screen so you can rapidly confirm settings and make adjustments as desired without searching through dedicated menus. When fleeting shooting opportunities arise, you'll be able to respond swiftly with just the right settings.

High contrast 2.4M dot OLED EVF for eye-level framing

View every scene in rich detail with the XGA OLED Tru-Finder, which features OLED improvements and the same 3-lens optical system used in the flagship α99. The viewfinder faithfully displays what will appear in your recording, including the effects of your camera settings, so you can accurately monitor the results. You'll enjoy rich tonal gradations and 3 times the contrast of the α99. High-end features like 100% frame coverage and a wide viewing angle are also provided.

3.0" 921k dot LCD tilts for high and low angle framing

The tiltable 3.0" (921k dots) Xtra Fine™ LCD Display makes it easy to photograph over crowds or low to capture pets eye to eye by swinging up approx. 84° and down approx. 45°. Easily scroll through menus and preview live thanks to LCD technology that dramatically increases visibility in bright daylight. The large display delivers brilliant-quality still images and movies while enabling easy focusing operation.

Simple connectivity to smartphones via Wi-Fi® or NFC

Connectivity with smartphones for One-touch sharing/One-touch remote has been simplified with Wi-Fi®/NFC control. In addition to Wi-Fi support for connecting to smartphones, α7R also supports NFC (near field communication) providing "one touch connection" convenience when transferring images to Android™ smartphones and tablets. Users need only touch devices to connect; no complex set-up is required. Moreover, when using Smart Remote Control — a feature that allows shutter release to be controlled by a smartphone — connection to the smartphone can be established by simply touching compatible devices.

PC control w/ remote video capture control

Remote Camera Control allows you to control your α 7R from your PC using a USB cable. Feature control has also been updated to include video capture control.

14-bit RAW output for rich tonal gradation

14-bit RAW image data of extremely high quality is outputted by the α 7R. This data fully preserves the rich detail generated by the image sensor during the 14-bit A/D conversion process. When developed with Sony's Image Data Converter RAW development software, these images deliver the superb photographic expression and rich gradation that only 14-bit data can offer.

New BIONZ[®] X image processing engine

Sony proudly introduces the new BIONZ[®] X image processing engine, which faithfully reproduces textures and details in real time, as seen by the naked eye, via extra high-speed processing capabilities. Together with front-end LSI (large scale integration) that accelerates processing in the earliest stages, it enables more natural details, more realistic images, richer tonal gradations and lower noise whether you shoot still images or movies.

Full HD movie² at 24p/60i/60p w/uncompressed HDMI output

Capture Full 1920 x 1080 HD uncompressed clean-screen video files to external recording devices via an HDMI[®] connection in 24p, 60p and 60i frame-rates. Selectable in-camera AVCHD[™] codec frames rates include super-smooth 60p, standard 60i or cinematic 24p. MP4 codec is also available for smaller files for easier upload to the web.

Gapless, optimally positioned on-chip lenses

Sony optimized the design and positioning of every on-chip lens (OCL) covering every pixel to significantly enhance light-gathering efficiency. A gapless on-chip lens design eliminates the gaps between the micro-lenses to collect more light. Moreover, each on-chip lens is optimally positioned depending on its location to accommodate the sharper angle of light entering the periphery, which is caused by larger sensor dimensions being teamed with the E-mount's short flange-back distance.

Multi-interface Shoe for flash and microphone flexibility

Unlike conventional cameras, the α 7R features the advanced Multi-Interface Shoe that dramatically expands compatibility with Sony digital imaging accessories, thus raising the potential for photo/movie shooting.

4K Still image output by HDMI^{®8} or WiFi for viewing on 4K TVs

Enjoy Ultra High Definition slide shows directly from the camera to a compatible 4K television. The α 7R converts images for optimized 4K image size playback (8MP). Enjoy expressive rich colors and amazing detail like never before. Images can be viewed via an optional HDMI connection⁴ or via WiFi.

TRILUMINOUS[™] color outputs wider color gamut to compatible devices

TRILUMINOS[™] Color technology, allows you to experience photos and movies in rich, natural colors on any TV equipped with a TRILUMINOS Display[™]. The expanded color gamut immerses you in those unforgettably colorful moments, from the complex shades in a shimmering blue sky to the delicate skin in a baby's face.

PlayMemories[™] Camera Apps allows feature upgrades

Personalize your camera by adding new features of your choice with PlayMemories[™] Camera Apps. Find apps to fit your shooting style from portraits, detailed close-ups, sports, time lapse, motion shot and much more. Use apps that shoot, share and save photos using Wi-Fi that make it easy to control and view your camera from smartphone, and post photos directly to Facebook or backup images to the cloud without connecting to a computer.¹¹

Image Data Converter

Advanced features enable manipulation, conversion and management of full-resolution RAW images. You can expertly adjust exposure, white balance, tonal curves, saturation, contrast, hue and sharpness — as well as apply DRO and vignetting compensation. Bundled Remote Camera Control software also lets you remotely activate and deactivate still/movie recording and control various camera settings from a PC.

Vertical Grip Capable

Enjoy long hours of comfortable operation in the vertical orientation with this sure vertical grip, which can hold two batteries for longer shooting and features dust and moisture protection.

Mount Adaptors

Both of these 35mm full-frame compatible adaptors let you mount the α 7R with any A-mount lens. The LA-EA4 additionally features a built-in AF motor and Translucent Mirror Technology to enable continuous phase-detection AF. Both adaptors also feature a tripod hole that allows mounting of a tripod to support large A-mount lenses.

Specifications

Camera	
Lens Compatibility	Sony E-mount Full Frame, operation with Minolta / Konica Minolta Maxxum A-mount lenses confirmed via optional LA-EA3/LA-EA4 adaptor ²
Camera Type	Interchangeable Lens Digital SLR camera
Lens Mount Type	Sony E-mount Full Frame
Imaging Sensor	
Imaging Sensor	Exmor CMOS sensor (35.9 x 24.0mm)
Processor	BIONZ® X image processor
Anti Dust	Charge protection coating on optical filter and ultrasonic vibration mechanism
Pixel Gross	36.8 Megapixels (approx.)
Effective Picture Resolution	36.4 Megapixels (approx.)
Color Filter System	RGB primary color filters
Recording	
Media Type	Memory Stick PRO Duo, Memory Stick PRO-HG Duo, Memory Stick XC-HG Duo, SD memory card, SDHC memory card (UHS-I compliant), SDXC memory card (UHS-I compliant)
Color Space	Still: sRGB standard (with sYCC gamut) and Adobe RGB standard compatible with TRILUMINOS™ Color Movie: xvYCC standard (x.v.Color™ when connected via HDMI cable) compatible with TRILUMINOS™ color
Still Image Mode	RAW, RAW JPEG, JPEG Extra fine, JPEG Fine, JPEG Standard
Still Image Max Effective Resolution	36.4 Megapixels
Still Image Size 16:9	35mm full frame: L: 7360 x 4144 (30M), M: 4800 x 2704 (13M), S: 3680 x 2072 (7.6M) APS-C: L: 4800 x 3200 (15M), M: 3680 x 2456 (9.0M), S: 2400 x 1600 (3.8M)
Still Image Size 3:2	35mm full frame: L: 7360 x 4912 (36M), M: 4800 x 3200 (15M), S: 3680 x 2456 (9.0M) APS-C: L: 4800 x 3200 (15M), M: 3680 x 2456 (9.0M), S: 2400 x 1600 (3.8M)
Panorama Still Image Size	Horizontal Wide: 12,416 x 1,856 (23M) Horizontal Std.: 8,192 x 1,856 (15M) Vertical Wide: 2,160 x 5,536 (12M) Vertical Std.: 2,160 x 3,872 (8.4M)
Video Mode	AVCHD format Ver. 2.0 compliant / MP4
Video Resolution	AVCHD™: PS - 1920 x 1080/60p@28Mbps FX - 1920 x 1080/60i@24Mbps FH - 1920 x 1080/60i@17Mbps FX - 1920 x 1080/24p@24Mbps FH - 1920 x 1080/24p@17Mbps MP4: HD - 1440 x 1080/30p@12Mbps VGA - 640 x 480/30p@3Mbps
Video Signal	NTSC color, EIA standards
Audio Format	Dolby Digital (AC-3) / MPEG-4 AAC-LC
Microphone/Speaker	Built-in stereo microphone or ECM-CG50 / XLR-K1M (sold separately) / Built-in monaural speaker; volume settings in 8 steps between 0 and 7

Still Image File Format	JPEG (DCF Ver. 2.0, Exif Ver.2.3, MPF Baseline compliant), RAW (Sony ARW 2.3 format)
Optics/Lens	
Lens Type	Sony E-mount Full Frame
Lens Mount Type	Sony E-mount Full Frame
Digital Zoom	Yes, approx. 4x
Direct Manual Focus	Yes
Exterior Finish	Black
EV Compensation	+/-5.0 EV (in 1/3 EV or 1/2 EV steps), with exposure compensation dial: +/-3.0 EV (in 1/3 EV step)
Viewfinder	
Type	1/2-inch (1.30 cm) XGA OLED color electronic viewfinder
Diopter Adjustment	-4.0 m-1 ~ +3.0m-1 (diopter)
Field of View	100%
Magnification	Approx. 0.71x with 50 mm lens at infinity, -1m-1 (diopter)
LCD Display	
LCD Type	3.0" (7.5cm) TFT LCD (921,600 dots) with tiltable design
Brightness Control	Manual (5 steps between -2 to +2), Sunny Weather mode
Coverage	100%
Live View	Continuous Live View
Real-time image adjustment display	Yes (On / Off)
Histogram	Yes (On / Off)
Peaking	Yes (Level setting: High / Mid / Low / Off, Color: White / Red / Yellow)
Grid Display	Graphic Display / Display All Info. / No Disp. Info. / Histogram / Digital Level Gauge / Shooting information for viewfinder mode
Customization	Grid, Histogram display, Digital Level Gauge, Grid Line, Magnified display for playback
Focus Control	
Focus System	Contrast-detection AF
Focus Points	25 points (contrast-detection AF)
AF Modes	Single-shot AF (AF-S), Continuous AF (AF-C), Direct Manual Focus (DMF), Manual Focus
Focus Area	Multi Point (25 points) / Center-weighted / Flexible Spot (S/M/L) / Zone
Focus Sensitivity	EV 0 to 20 EV (at ISO100 equivalent, with F2.8 lens attached)
Manual Focus Assist	35mm full frame: 7.2x, 14.4x APS-C: 4.7x, 9.4x
Focus Features	Lock-on AF, Eye AF, Focus lock, Eye-start AF (only available with optional LA-EA2 or LA-EA4 attached), AF illuminator (built-in, LED type, range: Approx. 0.30-3m), AF micro adjustment, AF ON
AF Illuminator	Yes (with built-in LED type)
Exposure System	
Picture Effect(s)	13 modes: Posterization (Color, B/W), Pop Color, Retro Photo, Partial Color (R, G, B, Y), High Contrast Monochrome, Toy Camera, Soft High-key, Soft Focus, HDR Painting, Rich-tone Monochrome, Miniature, Watercolor, Illustration
Auto Exposure Lock	Available with AE lock button. Locked when shutter button is pressed halfway. Can be disabled from the Menu.
Color Temperature	2500 - 9900K with 15-step each Magenta/Green compensation (G7 to M7), Amber/Blue (A7 to B7), Custom
Creative Style	Standard, Vivid, Neutral, Clear, Deep, Light, Portrait, Landscape, Sunset, Night Scene, Autumn Leaves, Black White, Sepia (Contrast -3 to +3 steps, Saturation -3 to +3 steps, Sharpness -3 to +3 steps)
D-Range Optimizer	Off, Dynamic Range Optimizer (Auto/Level (1-5)), Auto High Dynamic Range: Auto Exposure Difference, Exposure Difference Level (1.0-6.0 EV, 1.0 EV step)

Exposure Bracketing	With 3 frames in 1/3 EV, 1/2 EV, 2/3 EV, 1.0 EV, 2.0 EV or 3.0 EV increments. With 5 frames in 1/3 EV, 1/2 EV or 2/3 EV increments
Exposure Compensation	+/-5.0 EV (in 1/3 EV or 1/2 EV steps), with exposure compensation dial: +/-3.0 EV (in 1/3 EV steps)
Exposure Settings	AUTO (iAUTO, Superior Auto), Programmed AE (P), Aperture priority (A), Shutter-speed priority (S), Manual (M), Scene Selection, Sweep Panorama, Movie
ISO	Still images: ISO 100-25600 (ISO numbers up from ISO 50 can be set as expanded ISO range), AUTO (ISO 100-6400, selectable lower limit and upper limit) Movies: ISO 200-25600 equivalent, AUTO (ISO 200-6400 equivalent)
Metering	Advanced 1200-zone evaluative metering
Metering Modes	Multi-segment, Center-weighted, Spot
Metering Sensitivity	EV 0 to 20 EV (at ISO100 equivalent, with F2.8 lens attached)
Noise Reduction	Long exposure NR: On / Off, available at shutter speeds longer than 1 sec., High ISO NR: Normal / Low / Off selectable
Scene Mode(s)	Portrait, Landscape, Macro, Sports Action, Sunset, Night Portrait, Night Scene, Hand-held Twilight, Anti Motion Blur
White Balance Mode	Auto WB / Daylight / Shade / Cloudy / Incandescent / Fluorescent (Warm White / Cool White / Day White / Daylight) / Flash / Color Temperature (2500 to 9900K) Color Filter (G7 to M7: 15 steps, A7 to B7: 15 steps) / Custom / Underwater
Drive System	
Continuous Shooting Speed	Continuous shooting: Max. 1.5fps, Speed Priority Continuous shooting: Max. 4.0fps
Drive Mode	Single shooting, Continuous shooting, Speed Priority Continuous shooting, Self-timer (10/2 sec delay selectable), Self-timer (Cont.) (10 sec. delay; 3/5 exposures selectable), Bracketing (Cont., Single, White Balance, DRO)
Self-timer	2-sec. or 10-sec. delay
Shutter Speeds	1/8000 to 30 seconds, bulb
Shutter Type	Electronically-controlled, vertical-traverse, focal-plane shutter
Flash	
Flash Bracketing	With optional external flash: 1/3, 1/2, 2/3, 1, 2, 3 EV steps, 3/5 frames (1.0/2.0/3.0 EV: only 3 frames) selectable
Flash Compensation	With optional external flash: ±3.0 EV (switchable between 1/3 and 1/2 EV steps)
Flash Coverage	With optional external flash: 16 mm (focal length printed on lens body)
Flash Metering System	With optional external flash: Pre-flash TTL
Flash Modes	With optional external flash: Flash off, Auto flash, Fill-flash, Rear Sync., Slow Sync., Red-eye reduction (On/Off selectable), Hi-speed sync, Wireless
Flash Type	Optional external flash
Convenience Features	
Self Timer	Yes
Red-Eye Reduction	Yes
Erase/Protect	Yes
Media/Battery Indicator	Yes
Power Save Mode	Yes
Still Image Playback Options	Single (with or without shooting information, RGB histogram highlight/shadow warning), 9/25-frame index view, Enlarged display mode (Maximum magnification L: 23.0x, M: 15.0x, S: 11.5x), Auto Review (10 / 5 / 2 sec, off), Image orientation (Auto / Manual / Off selectable), Slideshow, Panorama scrolling, Folder selection (Still / Date / MP4 / AVCHD), Forward/Rewind (Movie), Delete, Protect
Video Playback Options	Forward / Rewind (Movie)
Multiple Language Display	Yes
Advanced Features	
Face Detection	On, Off, Face Registration, Face Selection; maximum eight faces detected

Smile Shutter™ technology	Smile shutter (selectable from 3 steps)
Image Stabilization	Lens-based (where applicable)
Intelligent Auto	Yes
Superior Auto	Yes
Tracking Focus	Yes
Anti Motion Blur	Yes
Auto High Dynamic Range	Yes, (Auto Exposure Difference, Exposure difference Level (1-6 EV at 1.0 EV step), off)
Priority Setting (for Face Detection)	Yes (eight faces max)
Sweep Panorama	Horizontal (Wide / Standard), Vertical (Wide / Standard)
Interface	
Headphone Jack	Yes
Microphone Input	Yes
Remote Commander	Yes, via optional RM-VPR1
Accessory Shoe	Yes, via Multi Interface Shoe
PictBridge Compatible	Yes
A/V Remote Terminal	Yes, via Multi Terminal interface
BRAVIA® Sync™	Yes, via HDMI® with compatible BRAVIA HDTV (link menu)
DC IN	Yes via optional AC-PW20AM (sold separately)
HD Output	HDMI® Type D micro connector
Memory Card Slot	Memory Stick PRO Duo, Memory Stick PRO-HG Duo, Memory Stick XC-HG Duo, SD memory card, SDHC memory card (UHS-I compliant), SDXC memory card (UHS-I compliant)
NFC	Yes (NFC Forum Type 3 Tag compatible, One-touch remote, One-touch sharing)
PhotoTV HD	Yes, with BRAVIA Sync enabled HDTV and HDMI® cable
Tripod Mount	Yes, 1/4" (20 thread count)
USB Port(s)	USB 2.0 Hi-speed (mass-storage, MTP)
Weights and Measurements	
Dimensions (Approx.)	Approx. 5 x 3-3/4 x 1-15/16" (126.9 x 94.4 x 48.2 mm) (W/H/D) excluding protrusions
Weight (Approx.)	With battery and Memory Stick PRO Duo Approx. 1 lb. 0.4 oz. (465 g)
Weight(Approx) (Main unit only)	Approx. 14.4 oz. (407 g)
Power	
Battery Type	Infolithium® NP-FW50 (7.2V)
Battery Capacity	1080 mAh
Number of Still Images	Approx. 340 images with LCD monitor (CIPA standard)
Power Requirements	One rechargeable battery pack (NP-FW50)
Software	
Supplied Software	Supplied Software: PlayMemories Home, Image Data Converter Version 4
Operating System Compatibility	Image Data Converter 4.0: Microsoft Windows® Vista® SP2, Windows® 7 SP1, Windows® 8 (Pentium 4 or faster) Mac OS X (10.6-10.8) (Intel Core Solo/Core Duo/Core 2 Duo or faster) PlayMemories Home: Microsoft Windows® Vista® SP2, Windows® 7 SP1, Windows® 8 (Pentium III 800 MHz or faster; for playing/editing HD movies: Intel Core Duo 1.66 GHz or faster/Intel Core 2 Duo 1.66 GHz or faster, Intel Core 2 Duo 2.26 GHz or faster (AVC HD (FX/FH)) Mac OS X (10.6-10.8) (Intel Core Solo/Core Duo/Core 2 Duo or faster)
Service and Warranty Information	
Limited Warranty Term	1 Year Parts Labor
Accessories	

Supplied Accessories

Lens cap
Rechargeable battery (NP-FW50)
AC adaptor (AC-UB10)
Shoulder strap
Body cap
Micro USB cable

1. Among interchangeable-lens cameras with an full frame sensor as of October 2013
2. Records in up to 29 minute segments.
7. Actual performance varies based on settings, environmental conditions, and usage. Battery capacity decreases over time and use.
8. Requires compatible BRAVIA® HDTV and cable sold separately.
9. Auto Focus function available with Sony E-Mount lenses and Sony A-mount SSM and SAM series lenses when using LA-EA2/EA4 lens adaptor.
11. Requires a valid Sony Entertainment Network account. Some apps require a fee.