

DSC-RX1R/B

Professional compact digital camera

Discover astonishing picture clarity and fine-tuned performance without the optical low-pass filter (OLPF). In a land where detail is king, we've completely maxed out image sharpness by removing the OLPF. What's left is a full-frame, 24.3-megapixel marvel that captures amazing detail resolution—and fits right in your pocket



Key Features

24.3 MP 35 mm Full Frame Sensor

A whole new world of high-quality images are realized through the 24.3 MP effective 35 mm full-frame sensor, a normal sensor range of ISO 100 – 25600, and a sophisticated balance of high resolving power, gradation and low noise. The BIONZ® image processor enables up to 5 fps high-speed continuous shooting and 14-bit RAW image data recording.

DSC-RX1R: Ultimate resolution

The RX1R is a special edition of the RX1 for photographers who want to take full advantage of the sensor's capabilities, and whose workflow normally includes computer based post-processing. The optical low-pass (anti-aliasing) filter that is built into the RX1 to minimize the occurrence of moiré and color artifacts has been removed from the RX1R, allowing the full resolution of the sensor to be achieved without compromise. The RX1R takes RX1 resolution to the limit.

Bright F2.0 Carl Zeiss® Sonnar T* lens

Carl Zeiss® lens expertise meets Sony optical precision in a sophisticated large-aperture lens that earns the coveted "Sonnar" name by offering remarkable brightness reminiscent of the sun. Whether taking casual snapshots, highly precise close-ups, or seriously composed landscapes and portraits, the Carl Zeiss Sonnar T* 35mm F2 fixed focal length lens ensures exceptional image quality.

Full HD 24p video and stereo input

Create movies of amazing clarity at Full HD resolution with manual control and stereo recording. Movies can be recorded at 60i for super smooth playback or 24p for a cinematic look. You can also use P/A/S/M modes to expand your moviemaking creativity. The DSC-RX1R Multi-interface shoe has been upgraded to record stereo sound when using the optional ECM-XYST1M external microphone.

Amazing Low-light performance

Experience incredible low-light shooting without a flash. The camera captures six images in a fraction of a second. Combining the data from all six, it creates a single image with a reduction in noise equivalent to two additional steps of ISO sensitivity. Sensitivity selectable up to ISO 25600. (Recommended for still subjects.)

High speed Auto Focus

Focus fast as with high speed AF. To improve focusing speed and sensitivity, the Exmor® CMOS sensor uses its rapid throughput to deliver high-quality image signals to the camera's BIONZ® processor, which provides intelligent response data to a new high speed actuator motor in the lens. The result is fast, DSLR-like focusing speeds even in low light.

Full frame burst shooting

When subjects are moving quickly, you can capture the decisive moment by shooting continuously at 5 frames per second — while maintaining maximum image quality at full 24.3 effective megapixel (approx.) resolution made possible by the BIONZ® image processor.

Three control lens rings

Full manual operation is intuitive on the RX1. Users can keep their eyes on the subject and concentrate on the composition while comfortably adjusting the dedicated aperture, focusing, and macro switching rings.

Conveniently placed dials

Quick access to conveniently placed exposure compensation and focus mode dials.

TRILUMINOS Color

The DSC-RX1R support Sony's proprietary TRILUMINOS Color technology, allowing 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.

Expressive Full HD movie recording

As when capturing photographs, you can take full advantage of the bright lens and sensitive 35mm full-frame sensor to create movies of breathtaking quality in various lighting. Movies are recorded at Full HD resolution (1920 x 1080 pixel) in the AVCHD Ver. 2.0 progressive format, and movies can be recorded at 60i or 60p for super smooth playback or 24p for a cinematic look, or other frame rates for other effects. Full-time continuous AF ensures clear results even when capturing fast-moving subjects. Moreover, Creative Style settings and Picture Effect expand your moviemaking creativity while P/A/S/M modes enable manual exposure control.

Customizable buttons personalize operation

For the ultimate in user-friendly operation, you can easily reassign five buttons to activate other functions you frequently use. These buttons (Custom, AEL and Left/Right/Down) can be reassigned to activate any of the following functions: Drive mode, Flash mode, Autofocus Area, Face Detection, Smile Shutter, Auto Portrait Framing, Soft Skin Effect, ISO, Metering mode, Flash Compensation, White Balance, DRO, Auto HDR, Creative Style, Picture Effect, Image Size, Quality, Registration, AEL hold*, Spot AEL hold*, AEL toggle, Spot AEL toggle, AF/MF Control Hold*, AF/MF Control Toggle, Smart Tele-converter, Zoom, Focus Magnifier, Aspect Ratio, Monitor Mute and Not set. * Cannot be assigned to left, right and down buttons.

Bright high-resolution display

The 3.0" (1,229k-dot) Xtra Fine LCD enhances shooting ease by displaying scenes with impressive brightness and accuracy. Brightness is boosted by the white pixels of WhiteMagic™ technology, while blacks are displayed blacker thanks to various Sony technologies including an AR (anti-reflection) coating on the LCD surface and a layer of resin between the LCD and reinforced glass that together suppress light reflection even when shooting outdoors. An illumination intensity sensor also optimally adjusts brightness depending on your shooting environment.

Quick Navi simplifies navigation

Easier to navigate than conventional menus, Quick Navi lets you confirm current camera settings at a glance and promptly change settings with the cross keys and control dial/wheel. User-friendly icons further contribute to easy operation that doesn't require looking into menus — a capability that especially comes in handy when using the optional viewfinder.

Memory Recall (MR) memorizes combined settings

Whenever you find a perfect combination of camera settings for a certain type of shooting situation, you can save it in memory by using the Memory Recall mode. Should a similar situation arise, you can immediately activate the saved combination via dial. This mode can memorize up to three groups of settings (including exposure modes, shutter speed, Drive mode, ISO, White Balance, Metering modes, etc.).

Grid lines support balanced compositions

You can display grid lines on the LCD to support more accurate horizontal and vertical alignment of the camera with walls, streets and other elements in your scene. There are three styles to choose from (Rule of 3rds Grid Line, Square Grid Line, and Diagonal + Square Grid Line). For extra assistance, the Dual-axis Digital Level Gauge can be used to check for camera roll and pitch.

Finer focusing via MF Assist and Peaking functions

During manual focusing, use MF Assist to enlarge the displayed image up to 11.7x (approx.) and more clearly see the results of your finest focusing adjustments. A Peaking function can also be activated to enable focusing confirmation at a glance by colorizing the most sharply focused areas.

More natural gradations through D-range Optimizer (DRO)

In difficult lighting conditions such as backlit scenes, DRO analyses and corrects your image in real time to achieve smoother, more natural gradations with more detail in the highlights and shadows that more closely match what you see with your naked eye. You can choose the amount of correction up to 5 steps and even apply DRO during continuous shooting to achieve better results during sports photography.

White balance versatility for desired color tones

Auto White Balance (AWB) produces more natural colors by compensating for the type of lighting in your scene. The RX1 / RX1R also provides a full range of white balance presets (Daylight, Incandescent, Fluorescent, etc.) a Color Temperature & Color Filter function, and Custom white balance adjustment options. You can even intuitively adjust white balance on a chart — in the amber-blue and green-magenta directions — during real-time monitoring of your scene* to achieve desired colors. * When a flash is used, the color tone can be adjusted after the image is shot.

Image Data Converter Ver. 4.2 RAW image development software

This powerful PC software provides advanced features for developing, editing and managing your 14-bit RAW (Sony ARW format) images. For example, you can expertly adjust exposure, white balance, tonal curves and more to match your creative intentions; convert the color space; save images in the JPEG, 16-bit TIFF and other formats; create thumbnail portfolios with image ratings; or apply Creative Style settings. The software can be downloaded for free from the Internet.

Specifications

Camera	
Camera Type	Cybershot®
Lens Compatibility	Fixed lens
Imaging Sensor	
Imaging Sensor	35mm full-frame (35.8mm x 23.9mm) Exmor® CMOS Sensor, aspect ratio 3:2
Processor	BIONZ® image processor
Pixel Gross	24.7M pixels (approx.)
Effective Picture Resolution	24.3M pixels (approx.)
Color Filter System	RGB primary color filters
Recording	
Media Type	Memory Stick PRO Duo™/Pro-HG Duo™ media; SD, SDHC and SDXC memory card
Color Space	sRGB standard (with sYCC gamut) and Adobe RGB standard compatible with TRILUMINOS™ Color
Still Image Mode	JPEG (Standard, Fine, Extra Fine), RAW, RAW+JPEG
Still Image Max Effective Resolution	24.3 Megapixels
Still Image Size 16:9	L: 20M (6000 x 3376) / M: 8.7M (3936 x 2216) / S: 3.9M (2640 x 1488)
Still Image Size 3:2	L: 24M (6000 x 4000) / M: 10M (3936 x 2624) / S: 4.6M (2640 x 1760)
Panorama Still Image Size	Horizontal Standard (8192 x 1856 / 3872 x 2160), Horizontal Wide (12416 x 1856 / 5536 x 2160)
	3D Sweep Panorama: N/A
Video Format	AVCHD Ver. 2.0 / MP4 (MPEG-4 AVC (H.264))
Video Mode	AVCHD: 28M PS (1920 x 1080, 60p) 24M FX (1920 x 1080, 60i) 17M FH (1920 x 1080, 60i) 24M FX (1920 x 1080, 24p) 17M FH (1920 x 1080, 24p)
	MP4: 12M (1440 x 1080, 30 fps) 3M VGA (640 x 480, 30 fps)
Video Signal	NTSC color, EIA standards
Audio Format	Dolby Digital (AC-3) / MPEG-4 AAC-LC
Microphone/Speaker	Built-in Stereo Microphone
Still Image File Format	JPEG (DCF Ver. 2.0, Exif Ver.2.3, MPF Baseline compliant), RAW (Sony ARW 2.3 format)
Wind Noise Reduction	Yes (On/Off)
Optics/Lens	
Lens Type	Carl Zeiss® Vario-Sonnar T* lens, 8 elements in 7 groups (3 aspheric elements including AA lenses)
Aperture	F2.0 - 22
Aperture (Max.)	F2.0
Aperture (Min.)	F22

Digital Zoom	Still Image: 24M approx. 4x / 10M approx. 6.1x / 4.6M approx. 9.1x Movie: Approx. 4x
Focal Length (35mm equivalent)	(Still Image 3:2) f=35mm (Still Image 16:9) f=37mm (Still Image 4:3) f=48mm (Movie 4:3) f=48mm (SteadyShot® On), f=37mm (SteadyShot Off) (Movie 16:9) f=44mm (SteadyShot® On), f=45mm (SteadyShot Off)
Aperture Blade	Iris diaphragm (9 blades)
Clear Image Zoom	2x
LCD Display	
LCD Type	3.0" (7.5cm) (4:3) / 1,229,000 dots / Xtra Fine / TFT LCD
Brightness Control	Auto / Manual (5 steps) / Sunny Weather mode
Coverage	100% Field of View
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	Yes (Rule of Thirds, 4x6 Square, Diagonal & 4x6 Square Grids, Off)
Customization	Grid, Histogram display, Digital Level Gauge, Grid Line, Magnified display for playback
Focus Control	
Focus System	Contrast-detect AF
Focus Points	25 points
AF Modes	Single-shot AF (AF-S) / Continuous AF (AF-C) / Direct Manual Focus (DMF) / Manual Focus
Focus Area	Multi point AF (25 points) / Center weighted AF / Flexible spot / Flexible spot (tracking focus) / Flexible spot (face tracking)
Exposure System	
Metering Modes	Multi-segment, Center-weighted, Spot
Metering Sensitivity	EV 0 to 20 (at ISO100 equivalent)
Exposure Compensation	+/- 3.0 EV, 1/3 EV step
Exposure Settings	(Still) Superior Auto, Intelligent Auto, Program Auto (Program shift available), Shutter Priority, Aperture Priority, Manual, Scene Selection, Movie, Sweep Panorama (Movie) Program Auto, Aperture Priority, Shutter Priority, Manual
Scene Mode(s)	Hand-Held Twilight, Landscape, Night Portrait, Night Scene, Portrait, Sports Action, Sunset
D-Range Optimizer	Off, Dynamic Range Optimizer (Auto / Level), Auto High Dynamic Range: Off, Auto exposure difference, Exposure difference level (1.0 – 6.0 EV, 1.0 EV step)
Auto Exposure Lock	Yes (AE Lock button). Can be disabled from menu
ISO	(Still Image) ISO 100-25600 (1/3 EV step, expandable to ISO 50/64/80) Auto ISO 100 - 25600, selectable with upper / lower limit Multi Frame NR: Auto (ISO 100-25600, selectable with upper/lower limit), 100-102400 (1 EV step)

Creative Style	Autumn Leaves, Black & White, Clear, Deep, Landscape, Light, Neutral, Night Scene, Portrait, Sepia, Standard, Sunset, Vivid Contrast (-3 to +3steps), Saturation(-3 to +3steps), Sharpness(-3 to +3steps)
White Balance Mode	Auto / Daylight / Shade / Cloudy / Incandescent / Fluor (Warm White) / Fluor (Cool White) / Fluor (Day White) / Fluor (Daylight) / Flash / C. Temp., Filter / Custom
Color Temperature	2500 – 9900K with 15-step each Magenta/Green compensation (G7 to M7), Amber/Blue (A7 to B7), Custom
Exposure Bracketing	3 continuous or single shots in 1/3 or 2/3 EV steps
ISO Sensitivity (Movie)	(Movie) Auto ISO: 100 - 3200 equivalent, ISO 100-6400 equivalent (1/3 EV step)
Picture Effect(s)	(Still Image) Toy Camera, Pop Color, Posterization, Retro Photo, Soft High-key, Partial Color, High Contrast Monochrome, Soft Focus, HDR Painting, Rich-tone Monochrome, Miniature, Watercolor, Illustration (Movie) Toy Camera, Pop Color, Posterization, Retro Photo, Soft High-key, Partial Color, High Contrast Monochrome
Drive System	
Drive Mode	Single-shot, Continuous, Speed Priority Continuous, Self-timer (10/2 sec. delay), Self-timer (Cont.), Self-portrait One-person, Self-portrait Two-person, (with 10 sec. delay; 3/5 exposures), Bracketing
Continuous Shooting Speed	Speed Priority Continuous mode: Approx. 5 fps, Continuous mode: Approx. 2.5 fps (AF-S)
Self-timer	10 sec. / 2 sec. / Self-portrait One-person/ Self-portrait Two-person/ Self timer Continuous (3 or 5 shots)
Shutter Speeds	Program Auto (30 - 1/4000*)/ Aperture Priority (30 - 1/4000*)/ Shutter Priority (30 - 1/4000*)/ Manual (Bulb, 30 - 1/4000*)(*Maximum speed at F5.6 or greater aperture value. Maximum speed at F2.0 is 1/2000 sec.)
Burst Buffer	JPEG Standard (22 shots) JPEG Fine (16 shots) JPeG Extra Fine (24 shots) RAW (15 shots) RAW+JPEG (12 shots)
Flash	
Flash Type	Built-in, Pop-up Auto
Flash Metering System	Pre-flash TTL
Flash Modes	Flash Mode: Auto / Fill-flash / Slow Sync / Rear Sync / Off Wireless (using compatible external flash)
Flash Compensation	±2.0 EV (switchable between 1/3 EV steps)
Flash Coverage	ISO Auto: 1' to 49' 2" (0.30m to 15.0m) (W) / 1' 9" – 18' 8" (0.55m to 5.7m) (T) ISO 12800: Up to 98' 5" (30.0m) (W) / 37' (11.3m) (T)
Recycling Time	Approx. 3 sec.
Guide Number	6 (in meters at ISO 100)
Flash Bracketing	±2.0 EV
Convenience Features	
Media/Battery Indicator	Yes
View & Index	Single (with or without shooting information), RGB histogram and highlight/shadow warning, 4/9-frame index view, Enlarged display mode (L: 13.6x, M: 9.9x, S: 6.8x), Auto Review (10/5/2sec, Off), Image orientation (On/Off), Slideshow, Panorama scrolling, Folder selection (still), Forward/Rewind (movie), Delete, Protect
Advanced Features	

Auto High Dynamic Range	Yes, (Auto Exposure Difference, Exposure difference Level (1-6 EV at 1.0 EV step), off)
Sweep Panorama	Horizontal (Wide/Standard), Vertical (Wide/Standard)
Face Detection	On, Off, Face Registration, Face Selection; maximum eight faces detected
Smile Shutter™ technology	Smile shutter (selectable from 3 steps)
Image Stabilization	(Still Image) Optical (Movie) Active Mode, Optical type with electronic compensation (Anti-rolling)
Priority Setting (for Face Detection)	Yes (eight faces max)
Interface	
Memory Card Slot	Dual compatibility slot: Memory Stick PRO Duo™/Pro-HG Duo™/PRO-HG HX Duo™ media - SD, SDHC and SDXC memory card
HD Output	HDMI® (Type D micro)
USB Port(s)	USB 2.0 Hi-speed (mass-storage, MTP)
BRAVIA® Sync™	Yes, via HDMI® with compatible BRAVIA HDTV (link menu)
PhotoTV HD	Yes, with BRAVIA Sync enabled HDTV and HDMI® cable
Microphone Input	Yes, MI Shoe + Optional ECM-XYST1M Stereo Microphone
Remote Commander	Yes, via RM-VP1
Accessory Shoe	Multi Interface Shoe
DC IN	Yes, via AC-UB10 AC charger and USB cable
Tripod Mount	Yes (1/4" diameter, 20 threads per inch)
Weights and Measurements	
Dimensions (Approx.)	4-1/2" x 2-5/8" x 2-3/4" (113.3 x 65.4 x 69.6 mm) (W/H/D) excluding protrusions
Weight (Approx.)	With battery and Memory Stick PRO Duo Approx. 17 oz. (482 g)
Weight(Approx) (Main unit only)	Approx. 16 oz. (453 g)
Power	
Battery Type	InfLiTHIUM® NP-BX1 (3.6V)
Battery Capacity	1080 mAh
Number of Still Images	Up to 270 images with LCD monitor (Standard Quality, CIPA standard)
Power Consumption (in Operation)	Approx. 2.0W
Software	
Supplied Software	Supplied Software: PlayMemories Home, Image Data Converter Version 4 (via software download from camera)
Operating System Compatibility	PlayMemories Home: Windows® XP SP3, Windows Vista® SP2, Windows®7 SP1, Windows®8 (PlayMemories Home is not Mac compatible); PlayMemories Online Uploader: Windows XP SP3, Windows Vista® SP2, Windows®7 SP1, Windows® 8, Mac OS X (v10.5- v10.8); Image Data Converter Version 4.2: Windows® XP SP3, Windows Vista® SP2, Windows®7 SP1, Windows®8, Mac OS X (v10.5- v10.8)
Service and Warranty Information	
Limited Warranty Term	1 Year Parts & Labor
Accessories	
Supplied Accessories	Rechargeable Battery Pack (NP-BX1) AC Adaptor (AC-UD11) Micro USB cable Shoulder strap Lens cap Shoe cap Cleaning Cloth Instruction Manual

1. Via optional ECM-XYST1M Stereo Microphone

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