

For Immediate Release

Casio Expands Lineup of Responsive High Speed EXILIM Cameras

EX-ZR700 offers an 18x optical zoom lens and enhanced image stabilization
EX-ZR400 boasts long battery life, capturing about 515 photos on a single charge



EX-ZR700



EX-ZR400

TOKYO, January 29, 2013 — Casio Computer Co., Ltd., today announced the release of two new models in the High Speed EXILIM line of digital cameras. The EX-ZR700 is equipped with a wide-angle 25 mm,^{*1} 18x optical zoom lens, while the EX-ZR400 offers long battery life enabling it to capture about 515 photos^{*2} on a single full charge, the most of any camera in the line. High Speed EXILIM cameras offer popular responsive photo-taking features such as fast start-up, high-speed auto focus, and capture intervals of a fraction of a second.

^{*1} When converted to 35mm film format

^{*2} CIPA standard compliant

With the aim of providing digital cameras that enable people to capture fleeting moments with beautiful images, Casio has been pursuing the full potential of the compact digital camera using its original high-speed technologies. This effort is based on the company's "Triple Zero" development objective, which seeks to minimize and eliminate shutter lag, out-of-focus shots, and image blurring due to camera shake.

With the adoption of the latest EXILIM Engine HS Ver. 3, the two new models combine responsive operation and high-speed burst shooting. A new Triple Shot function allows the user to responsively capture three successive images with a single press of the shutter, while a new inset display enables the user to review shots shown in part of the LCD while taking photos. Thanks to these new features, even camera novices can reliably capture moments as they intended, including the fleeting expressions of a child.

Equipped with a wide-angle 25 mm, 18x optical zoom lens, the compact EX-ZR700 offers greatly enhanced image stabilization thanks to the adoption of lens shift image stabilization and technology for combining high-speed burst images (in High-Speed Anti Shake mode). Even in situations where it is necessary to shoot from a distance, such as recitals and sporting events, users can deftly capture their children's big moments without any image blur. Captured photos also look beautiful on the camera's high-resolution 3.0-inch 920K LCD.

Meanwhile, the new EX-ZR400 offers the longest battery life in this series, enabling the capture of about 515 images on a single charge. Even on family trips, where photo opportunities abound, users can forget about the battery level and focus on capturing their children's smiles.

Both new models come with Premium AUTO pro, which automatically combines images taken with high-speed burst shooting according to the shooting conditions, to dramatically improve final image quality in challenging situations. They have shooting functions that fully control focus, as well. These include All-In-Focus Macro, which can capture an entire scene in focus from the near foreground to the distant background, and Blurred Background, which yields impressive shots that look like they were taken with an SLR camera. Without the need for interchangeable lenses or difficult settings, users can take fun, beautiful shots with ease.

Main Features of the EX-ZR700 / EX-ZR400

Powered by the new EXILIM Engine HS Ver. 3

The new cameras are equipped with EXILIM Engine HS Ver. 3 driven by a dual-CPU, two parallel image processors, a reconfigurable processor and a vector graphics core. The reconfigurable processor delivers functional and performance flexibility plus high-speed processing based on the latest technologies from Casio, while the vector graphics core smoothly produces two-dimensional images. In addition to high-speed shooting response,^{*3} the new models feature an intuitive display screen that is easy to view, thanks to its high-quality graphic user interface.

^{*3} EX-ZR700: Start-up time of 1.4 seconds, high-speed auto focus time of 0.18 seconds, shutter response of only 0.016 seconds, and a capture interval of as short as 0.26 seconds

EX-ZR400: Start-up time of 0.99 seconds, high-speed auto focus time of 0.14 seconds, shutter response of only 0.015 seconds, and a capture interval of as short as 0.26 seconds

Above times are CIPA standard compliant

Compact body with high-quality high-power zoom

The EX-ZR700 is equipped with a wide-angle 25 mm, 18x optical zoom lens. The zoom maintains super resolution image quality to a maximum zoom of 36x, thanks to Multi Frame SR Zoom technology. Alternatively, the EX-ZR400 is equipped with a wide-angle 24 mm, 12.5x optical zoom lens, enabling zoom to be extended up to 25x with Multi Frame SR Zoom.

High-Speed Anti Shake to control noise and blur even when the camera is held in the hand by combining optical design and high-speed burst images (EX-ZR700)

Casio has employed an optical lens that achieves stabilization equivalent to approximately 2 stops slower^{*4} in terms of shutter speed. Bringing this effect together with combined high-speed burst images results in image stabilization equivalent to about 5 stops slower^{*5} in terms of shutter speed. This allows users to minimize blur while holding the camera to take pictures, which can easily result in camera shake, even for shots of night scenes and when zooming. (Results may vary depending on the shooting environment and camera settings). In addition, the EX-ZR700 employs a lens-shift optical lens, which further reduces image blur on the LCD screen when recording movies or holding the camera.

^{*4} CIPA standard (340mm when converted to 35 mm film format).

^{*5} Based on a Casio survey. In High-Speed Anti Shake mode.

Triple Shot with almost no shutter lag helps when the subject moves faster than the photographer's reflexes

The new cameras feature Triple Shot, which combines high-speed burst shooting with high-speed response for worry-free photography. The feature not only takes an image when the shutter button is pressed, but also captures images immediately before and after. As a result, Triple Shot enables users to capture decisive moments with quickly moving subjects such as children and pets.

Inset display for reviewing shots on part of the LCD screen while taking photos

The new models also feature an inset display on part of the LCD screen to show images just taken. This feature is convenient for photographing children because it allows users to check each shot, while responsively taking more pictures. Users can select from two different inset display screens.

AF-CS keeps moving subjects in focus even while continuously shooting

Casio has accelerated the frame rate in the auto focus (AF) mode and optimized the camera's lens drive control, image sensor control and AF algorithm for parallel processing of AF operations and high-speed continuous shooting. Built into the EX-ZR700, this makes it possible to achieve AF-CS up to 30 frames and as fast as five frames-per-second, which makes it possible to take clear photos of moving subjects such as children and pets.

All-In-Focus Macro and Blurred Background deliver total focus control with high-speed continuous shooting

Both new models come with All-In-Focus Macro, which selects only in-focus areas from continuously shot images at different focus settings to produce a composite image. This achieves photos with every area coming out in focus, from foreground subjects to far-away backgrounds, which are hard to produce using a conventional camera. Also, Casio has employed its high-speed continuous shoot technologies to create Blurred Background, an original technique for processing the background scene of a shot like the soft blur effect attainable using a single-lens reflex camera, thereby accentuating the subject of the photo. Users can select from three different processing levels of blur effects to set the background focus just as they wish.

Premium AUTO pro function produces beautiful photos with just a press of the shutter button

The Premium AUTO pro function automatically analyzes the shooting scene to choose the best settings and perform image processing. Built into both models, it automatically combines images from high-speed burst shooting according to shooting conditions to create gorgeous photos. Users can easily take sophisticated photos at the press of the shutter button, thanks to the automatic activation of functions such as HDR technology, which combines photos of differing exposures to handle high-contrast conditions, as well as High Speed Night Scene mode for night shots and High Speed Anti Shake for high-power zoom shooting, both of which combine highly sensitive, continuously shot images, taken with camera shake kept at a minimum, to reduce noise in the resulting image. For movies, the Premium AUTO Movie function automatically analyzes the scene to choose the best settings.

HDR technology faithfully reproduces images as they really appear, avoiding under- or over-exposure

In both models, the HDR technology developed by Casio allows each press of the shutter button to take several shots at different exposures and instantly combines them into a single image with a high dynamic range. This minimizes over exposed or under exposed areas in the image, creating a photo that captures all the rich tonal gradation of the scene just as it appears in real life.

HS Night Shot eliminates camera shake even in dark settings

With HS Night Shot, both new models detect shooting conditions and conduct high-speed burst

shooting of numerous frames determined automatically with a level of light sensitivity as high as ISO 25600. High-precision positioning alignment technology suppresses any low-frequency camera shake that may not be completely eliminated by the optical Anti Shake correction function. The company's latest image-processing technology also completely removes low-frequency color noise, which has typically been very difficult for cameras to eliminate. These technologies work together to produce beautiful photos with minimal blur, even in low-light conditions.

HDR-ART for creating artistic photos; freedom to create artistic images with ART Shot

Users of both new models can create artistic photos using the HDR-ART function, which combines continuous shots with differing exposures while performing advanced analysis to locally change the intensity of contrast and color saturation. Users can now choose from a total of five different processing levels of art effects to enjoy creating more freely expressive images. Among the five, two effect levels employ state-of-the-art advanced tone mapping technology to produce impressive tonal gradation for more dynamic photos. Additionally, ART Shot offers eight different filters for creating the artistic photos of the user's preference: toy camera, soft focus, light tone, pop art, sepia, monochrome, miniature and fisheye. Users can select from three different color and processing levels for each filter (select an area from six patterns for miniature), and can view the effect on the display and adjust the result prior to actually taking a picture. Even better, all of these filters can be used for shooting movies, too. The HDR-ART function simultaneously saves both the HDR-ART image and the standard photo with a single press of the shutter button.

Scenes come alive in their full expansiveness with the Wide Shot function

Both cameras can combine continuous shots taken with high-speed continuous shooting when the user is moving the camera, enabling powerful super-wide-angle shots. With the EX-ZR700, users can select wide-angle shooting modes equivalent to 15 mm or 19 mm. The EX-ZR400 offers a choice of wide-angle shooting modes equivalent to 14 mm or 18 mm.

Slide Panorama captures 360-degree panoramic images

The Slide Panorama function detects moving subjects and faces and adjusts them appropriately as the camera is moved, allowing users of both models to create more natural-looking panoramic images just by panning the camera across a scene.

Mode dial for rapid access to shooting modes

Both cameras are fitted with a mode dial that lets users quickly choose from several shooting modes.

Works with Eye-Fi™/FlashAir™ for wireless connection to computers and smartphones

Both cameras are compatible with Eye-Fi™/FlashAir™, making it possible to wirelessly send photos and movies to a computer or smartphone.

High-resolution 3.0-inch 920K LCD (EX-ZR700)

The EX-ZR700 boasts a high-resolution 3.0-inch LCD with 920,000 pixels, displaying captured images beautifully on the screen.

Long battery life delivers about 515 photos on a single charge (EX-ZR400)

Thanks to the original power-saving technology and algorithm optimization created by Casio, the EX-ZR400 offers long battery life enabling roughly 515 images to be taken on a single charge. This performance takes the worry out of extended picture taking, especially on a trip.

EX-ZR700 & EX-ZR400 Specifications

		EX-ZR700	EX-ZR400
Number of Effective Pixels		16.1 megapixels (/million)	
Image Sensor		1/2.3-inch high-speed CMOS	
Total Pixels		16.79 megapixels (/million)	
File Format	Still Images	RAW* ¹ , JPEG (Exif Ver.2.3), DCF 2.0, DPOF	JPEG (Exif Ver.2.3), DCF 2.0, DPOF
	Movies	MOV format, H.264/AVC, IMA-ADPCM (stereo)	
Built-in Flash Memory (Image Area)* ²		52.2MB	
Recording Media		SD Memory Card, SDHC Memory Card, SDXC Memory Card compatible	
Number of Recorded Pixels	Still Images	16M (4608 x 3456), 3:2 (4608 x 3072), 16:9 (4608 x 2592), 10M (3648 x 2736), 5M (2560 x 1920), 3M (2048 x 1536), VGA (640 x 480)	
	Movies	FHD: 1920x1080 (30fps) / HD* ³ :1280x720 (15fps/20fps/30fps) / STD: 640x480 (30fps) / HS1000: 224 x64 (1000fps) / HS 480: 224x160 (480fps) / HS 240: 512x384(240fps) / HS 120: 640x480 (120fps) /HS 30-240 : 512x384 (30 to 240fps) / HS 30-120: 640x480 (30 to 120fps)	
Recording Capacity (Maximum Image Size Setting)	Still Images (JPEG)	SD Memory Card 16GB* ⁴	Fine: Approx. 1072 shots Normal: Approx. 1654 shots
		Recording Time	Maximum recording time per file: 29minutes* ^{5*6}
	Movies	SD Memory Card 16GB* ⁴	Approx. 2 hours 13 minutes (FHD)
Continuous Shooting Speed		30 frames per second / 15 frames per second / 10 frames per second / 5 frames per second / 3 frames per second	
Lens	Construction		11 lenses in 10 groups, including aspherical lens
	F-number		F3.5 (W) to F5.9 (T)
	Focal Length		f= 4.5 to 81.0mm
		35mm Film Equivalent	Approx. 25 to 450mm
Zoom Ratio		18.0 x optical zoom, 36.0x Multi SR Zoom, 4x digital zoom,286.9x maximum digital zoom (in combination with HD zoom, VGA size)	12.5 x optical zoom, 25.0x Multi SR Zoom, 4x digital zoom,199.3x maximum digital zoom (in combination with HD zoom, VGA size)
Blur Correction		LENS Shift image stabilization	CMOS sensor Shift image stabilization
Focusing	Focus Type		Contrast Detection Auto Focus
	Focus Modes		Auto, Macro, Manual
	AF Area		Intelligent, Spot, Multi, Tracking
	AF assist lamp		Yes
Focus Range* ⁷ (From Lens Surface)	Auto		Approx. 4cm to infinity (W)
	Macro		Approx. 4cm to 50cm (W)
	Super Macro		—
	Infinity		—
	Manual		Approx. 4cm to infinity (W)
Exposure	Exposure Metering		Multi pattern, Center Weighted, Spot by imaging element
	Exposure Control		Program AE, Aperture Priority AE, Shutter Speed Priority AE, Manual Exposure
	Exposure Compensation		-2EV to +2EV (in 1/3EV steps)
Shutter			CMOS electronic shutter and mechanical shutter
	Shutter Speed* ⁸	Auto	1/4 to 1/2000 second
		Premium Auto PRO	4 to 1/4000 second
		Aperture Priority AE	1 to 1/2000 second
		Shutter Speed Priority AE/Manual Focus	15 to 1/2000 second (high-speed continuous shutter: up to 1/25000 second)
Aperture* ⁹		F3.5 (W) to F7.0 (W)* ¹⁰	F3.0 (W) to F7.9 (W)* ¹¹
White Balance		Auto WB, Daylight, Overcast, Shade, Day White FL, Daylight FL, Tungsten, Manual WB	
Sensitivity (SOS)* ¹²	Still Images		Auto, ISO80, ISO100, ISO200, ISO400, ISO800, ISO1600, ISO3200
	Still images (HS Night Shot)		Maximum ISO25600
	Movies		Auto
Self-Timer		10 seconds, 2 seconds, Triple Self-timer	

		EX-ZR700	EX-ZR400
Built-in Flash	Flash Modes	Auto, Flash off, Flash on, Red eye reduction	
	Flash Range* ¹³ (ISO Sensitivity: Auto)	Normal: Approx. 0.4 to 3.5m (W), approx. 1.5 to 2.1m (T)	Normal: Approx. 0.4 to 4.7m (W), approx. 0.9 to 2.4m (T)
	Flash Lighting Adjustment	+2,+1,0,-1,-2	
	Flash Charge Time	Approximately 5 seconds	
Recording Functions	Snapshot (Program Auto mode / Premium AUTO PRO mode), Snapshot by Super resolution technology (Multi Frame), High Speed Continuous shooting, Prerecord (still image), AF-CS, Triple Shot, Marco, Super Marco (EX-ZR400), Self-timer, BEST SHOT, Blurred Background, All-In-Focus Macro, HDR, HDR Art, Slide Panorama, Wide Shot, Best Selection, ART SHOT(still / movie), Face Detection, Make-up, High Speed Movie (with sound only when 30fps of HS30-120 and HS30-240), FHD Movie, STD Movie, HDR ART Movie, Prerecord (movie), YouTube™ Capture Mode, Lens shift stabilization (EX-ZR700), CMOS shift stabilization (EX-ZR400), Wind noise cut, ISO High Limit, Double (HDR ART)		
Playback Functions	Playback Zoom, Multi-image Screen, Start-up Images, Protect, Date & time Edit, Rotate, Re-size, Trimming, Copy, BGM Slideshow, Brightness, White Balance, Lighting, MOTION PRINT, Movie Editing, Continuous Shooting Multi Print, Continuous Shooting Frame Edit (DPOF Printing, Protect, Copy, Delete), Divide Group (Dividing Up a Continuous Shutter Group)		
Other Functions	PictBridge, Video Output: NTSC/PAL (EX-ZR400), Auto Rotate, Create Folder, USB charge, ECO Mode, Date and Time: Recorded with image data, With time stamp function, Auto Calendar: To 2049, World Time		
Monitor Screen	3.0-inch TFT color LCD (Super Clear LCD), 921,600 dots (640 x 1440)	3.0-inch TFT color LCD (Super Clear LCD), 460,800 dots (960 x 480)	
External connection terminal	Micro USB port (Hi-Speed USB compliance, USB charging) / HDMI™* ¹⁴ output (Micro/TypeD)* ¹⁵	USB port (Hi-Speed USB compliance, USB charging) / AV output terminal (NTSC/PAL), HDMI™* ¹⁴ output (Mini/TypeC)* ¹⁵	
Microphone	Stereo		
Speaker	Monaural		
Power Requirements	Rechargeable lithium ion battery (NP-130) x 1		
Battery Life	Number of Shots* ¹⁶	Approx. 470 shots	Approx. 515 shots
	Continuous Playback (Still Images)	Approx. 6 hours 25 minutes	Approx. 5 hours 50 minutes
	Actual Movie Recording Time (FHD Movie)* ¹⁶	Approx. 1 hours 30 minutes	Approx. 1 hours 35 minutes
	Continuous Movie Recording Time (FHD movie)* ¹⁶	Approx. 3 hours 5 minutes	Approx. 2 hours 35 minutes
Dimensions	WxHxD* ¹⁶	107.4 (W) x 60.0 (H) x 30.7 (D) mm (excluding projections; 25.5mm at thinnest point)	104.8 (W) x 59.1 (H) x 28.6 (D) mm (excluding projections; 24.2mm at thinnest point)
Weight* ¹⁶		Approximately 222g (Including Battery and Memory Card* ⁴) · Approximately 182g (Excluding Battery and Memory Card)	Approximately 205g (Including Battery and Memory Card* ⁴) · Approximately 165g (Excluding Battery and Memory Card)
Bundled Accessories	Rechargeable Lithium Ion Battery (NP-130), USB-AC Adaptor (AD-C54U), Micro USB cable, Strap, Quick Start Guide		Rechargeable Lithium Ion Battery (NP-130), USB-AC Adaptor (AD-C53U), AC Power Cord, USB cable, Strap, Quick Start Guide

- 1 DNG file format is one type of RAW image file, and it is recommended by Adobe Systems Incorporated for use as a standard image file format.
- 2 Built-in memory capacity after formatting.
- 3 HD movie is available for ART mode only.
- 4 When using SanDisk Corporation 16GB SDHC Memory Card.
- 5 Within limits of memory and battery life.
- 6 Maximum movie size per file is 4GB.
- 7 Using optical zoom causes the focus range to change.
- 8 Depending on user's setting of Camera.
- 9 Using optical zoom causes the aperture to change.
- 10 Using ND filter with no diaphragm.
- 11 Using ND filter with diaphragm.
- 12 SOS: Standard Output Sensitivity.
- 13 Range is affected by optical zoom.
- 14 HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
- 15 1080/50i output is not supported for PAL output using an HDMI™.
- 16 In accordance with CIPA (Camera and Imaging Products Association) standards.

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