

# SIGMA SD15

THE SIGMA SD15  
DIGITAL SINGLE LENS REFLEX CAMERA  
WITH FOVEON® FULL COLOR SENSOR



The SIGMA SD15.  
The world's only integral,  
three-layer, complete-color sensor.  
The camera that captures it all.







## A new camera for a new era

### **The photographer's everything — the camera.**

The photographer chooses the subject from many possibilities, capturing it in just the right light and shadow, at the perfect angle, and in the ideal frame. These elements come together for only an instant, so the photographer must work carefully but quickly.

A camera gives permanent life to these fleeting instants, capturing not only the objective facts but also the meaning and subjective emotions associated with them. For nearly two centuries, photographers have worked to preserve the objective and subjective with greater accuracy and fidelity, and camera makers have crafted more and more sophisticated instruments with which to accomplish these objectives.

### **Two elements of photographic expression**

In recent years, it's become more and more difficult to choose a digital camera from the many available options. But no matter how complex cameras become, the essence of photography remains the same: capturing the image as it exists in the photographer's imagination. The two parts of the camera essential

to this task are the lens and the image sensor.

In the era of film, photographers made fine adjustments to their cameras and played with the difference between films, aiming for different colors and levels of exposure and graininess as the mood suited them. In the digital era, however, although the consistency of cameras has increased, their individuality has tended to diminish, making the photographer's choice of instrument more difficult.

### **The sensor and the lens make the photograph**

The image sensor is the key to taking a more individualistic digital photograph. To choose the best camera, a photographer must understand the differences between the image sensors available, selecting the one that offers the greatest precision and best image quality.

Then, armed with the image sensor that matches his or her photographic vision, a photographer may select and deploy a variety of lenses that complement the sensor. The camera system that best empowers the dedicated photographer's ideal approach today is the Sigma digital single-lens reflex camera.

## The single-lens reflex camera of choice

### The most complete system camera available

To the photographer, exciting new subjects and compositions constantly appear—and drive the demand for a versatile camera that can grasp these opportunities. The most complete and flexible system camera available is the single-lens reflex (SLR) camera.

Refined by photographers over many decades, SLR technology allows the photographer to create a genuinely personalized system that matches his or her own style—a benefit offered by no other type of camera. Wide-angle, standard, telephoto, macro, high ratio zoom—all of these lenses and a wide range of accessories are available, accommodating any photographic circumstance.

### The photographer's vision makes the camera.

Since the image the photographer has in mind is highly individual, Sigma believes a good camera should allow creativity to come to the fore, helping the photographer overcome limitations and expand the possibilities of the craft. No camera affords the photographer more freedom than a digital SLR.

First comes the desire to create an image and capture meaning. Next come the proper tools—a digital

SLR camera, lenses, and accessories suited to the photographer's unique vision. To take the perfect picture, the photographer needs to be able to move freely from instant to instant. More than any other system, a digital SLR camera helps the photographer be creative and take advantage of moments that only come once.

### The appeal of an optical viewfinder

Another critical part of a digital SLR camera is the optical viewfinder. Based on advanced digital technology, the backlit LCD viewfinders with live preview and electronic viewfinders (EVF) found in compact digital cameras offer a high degree of scene visibility and convenience.

An optical viewfinder offers many distinct advantages. Verification of every aspect of the scene with the naked eye. High-precision focusing. A real-time and realistic image of the subject. Finer detail. Finer photographs.

An electronic image simply can't imitate these things, yet they are all crucial in taking highly precise, highly individual photographs. Currently, nothing matches an optical finder for revealing the subject exactly as it is and inspiring the photographer to take the ideal picture as conceived by that person.

### A camera that celebrates the photographer's style

In the sleek, sophisticated body of a Sigma digital SLR is the finest image sensor available. It is coupled with a Sigma lens that offers crystal-clear images and the highest level of finished image quality. The optical viewfinder satisfies the professional eye and makes taking pictures truly a delight. In addition, a Sigma digital SLR camera coordinates well with accessories to enhance the enjoyment of every photographic opportunity.

In short, a Sigma SLR camera is the complete system camera that empowers the photographer in the widest variety of creative circumstances. It allows the photographer not only to respond to the scene that presents itself but also to find and express a uniquely personal photographic method, style, and spirit.

More than any other camera, the Sigma digital SLR camera has the individuality to support the creativity of the photographer and maximize his or her abilities. It is a resource that sharpens discernment, deepens the compositional sense, and strengthens the creative will, allowing the photographer to take artistic action.





REALITIES

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NOVEMBER 2003

So say  
order

the young lions  
of Paris fashion





## The new standard for image quality and detail

### A sensor that enables true image quality

The image sensor is the most important part of a digital SLR camera. What, then, should a photographer choosing a new camera look for in an image sensor?

Most camera makers today emphasize megapixels, which are of course a factor in determining image resolution. Sigma believes, however, that a theory of image quality that begins and ends with the megapixels is grossly incomplete, since it is the structure of the image sensor that has the greatest impact on finished image quality.

From the first generation onward, Sigma digital cameras have featured the Foveon X3® direct image sensor. This sensor leverages the special qualities of silicon, which is penetrated to different depths by different wavelengths of light. It was the world's first and remains the world's only image sensor to capture fully the three basic colors of light — red, green, and blue — in each pixel location without relying on color filters.

In fact, the Foveon X3® direct image sensor receives red, green, and blue wavelengths of light vertically — just like modern color film. Considering it far superior to the much more common Bayer filter sensors available, most experts agree that the Foveon X3® direct image sensor has a unique structure that makes it the image sensor of the day — and of the future.

### Other digital cameras' monochrome image sensors

With the exception of Sigma's

products, almost all digital cameras available today contain monochrome image sensors. Unable to distinguish between colors, these sensors receive light through a filter that has an even distribution of red, green, and blue filtering units. As a result, the sensor records color not vertically, but horizontally.

Since each light-sensing photodiode has above it a tiny filter unit that lets in only one color, each pixel captures only one color, and data for the other two colors of light is never collected at all. A color interpolation process known as demosaicing guesses at the missing colors based on the colors of neighboring pixels, adding them back in.

Developed and refined over an extended period, this method of processing images has matured, and the interpolation of colors is now fairly accurate. Inevitably, however, interpolating colors based on neighboring pixels results in the loss of subtle color details found in the original subject.

### Demosaicing compromises color detail.

Due to the demosaicing process, conventional digital cameras using color filter arrays also generate color artefacts — colors not found in the original subject at all. The problem arises when areas of the subject have a higher frequency of color detail than can be adequately covered by the grid of red, green, and blue units in the Bayer filter.

A conventional Bayer filter digital camera has an additional optical low-pass filter between the lens

and the sensor. This filter acts on the high-resolution image from the imaging lens, eliminating high-frequency, detailed elements likely to generate color artefacts before they can reach the image sensor. Although it effectively suppresses color artefacts, the optical low-pass filter also systematically reduces the resolution of the image.

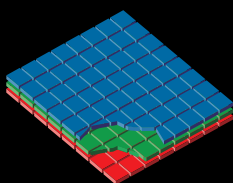
### The Foveon X3® direct image sensor generates truly emotional images.

Sigma digital SLR cameras produce truly emotional images, thanks to the Foveon X3® direct image sensor. Completely different in structure from conventional image sensors, the Foveon X3® direct image sensor offers truly distinctive image quality characterized by fine detail—detail essential to capturing the emotional qualities of the subject. Sigma digital SLR cameras are designed to reproduce what the photographer shoots, right down to the feeling in the air—a result that is only possible with a vertical color-capture system that does not require color interpolation, and an image-processing system that does not require an optical low-pass filter.

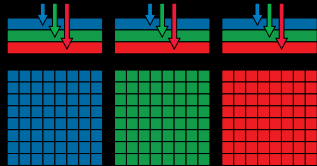
In contrast, a conventional image sensor performs guesswork on colors and even cuts out high-frequency areas completely. To a degree, colors can be adjusted in post-processing. But the subject's details and nuances, once lost, can never be recovered. To compensate, conventional cameras utilize sharpness processing to give the appearance of a higher resolution. As a result, these cameras produce images that have artificially sharp edges and give an uncanny and unnatural impression.



**The Foveon X3® Direct Image Sensor**

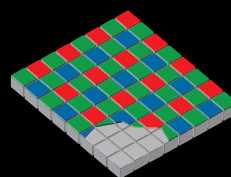


R: 100%, G: 100%, B: 100%

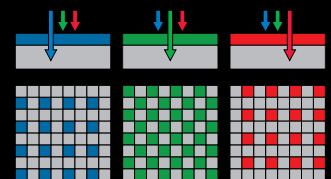


The Foveon X3® has three layers of photosensors, enabling it to capture 100% of the RGB color data at once.

**The Bayer filter Image Sensor**



R: 25%, G: 50%, B: 25%



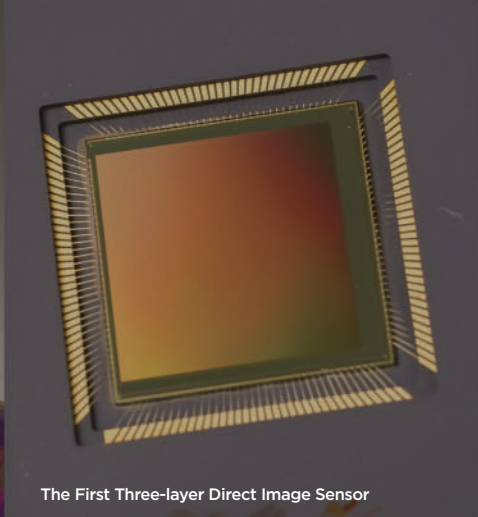
The old-fashioned Bayer filter image sensor can only capture 50% of the green color data, and a mere 25% each of the blue and the red.







Professor Carver Mead



The First Three-layer Direct Image Sensor



Professor Mead and Dick Lyon working with the prism camera

## The Inside Story

### The founding of FOVEON

Foveon's invention of the X3® direct image sensor traces its roots back to the research of Caltech physicist, Professor Carver Mead. One focus of Mead's research was the modeling in semiconductors of human capabilities. Mead's collaboration with a neuroscience research group eventually led him and his students into fundamental investigations of the image sensing process.

Mead's research led to a business venture supported by some of Silicon Valley's leading firms with both financial and human resources. In August 1997, Foveon was founded, taking its name from an anatomical term: fovea centralis.

### Maximal sensitivity to light and color

The fovea centralis is the central portion of the human retina that has the most acute vision and the best color perception. The name "Foveon" signaled the company's commitment to developing the world's most advanced and high-performance image sensors for the professional market. From its first days as a startup company, Foveon gathered

the best imaging engineering talent available and engaged in cutting-edge research and development.

Foveon's first product was not an image sensor but instead a complete digital camera. In this original system, a beam-splitter prism assembly separated the incoming light into its three primary colors, passing the red, green, and blue beams through separate color filters and directing them to three large image sensors. An extremely high-resolution image was then assembled from the data of the three colors.

This camera was extraordinary, high-end technology, but it was expensive to manufacture and ultimately too costly for the end user. By the time Foveon stopped prism digital camera production, it had already created a patented technology that would ensure its preeminence in the coming era of image processing research.

### The invention of a revolutionary device

Next, Dick Merrill, a leading semiconductor engineering working at Foveon, invented a device that could create a stack of RGB pixels

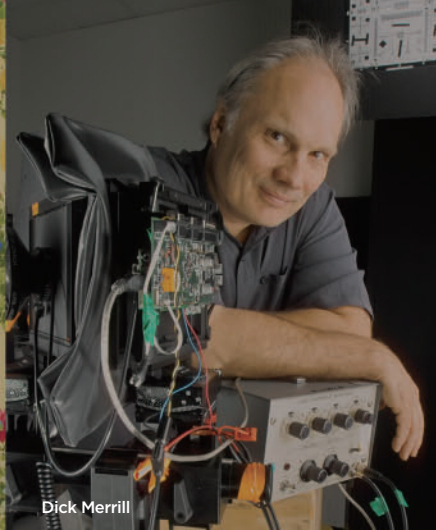
in each pixel location. Thanks to his special genius and a unique career, Merrill had developed the creativity needed to realize artistic objectives through advanced technology. His ability as a photographer led to crucial technological contributions, and his passion for artistic expression became the driving force behind the invention and development of Foveon's advanced, full-color image sensors.

### A new era in image processing

Merrill's device proved the feasibility of capturing RGB information in each pixel location, but it was not immediately possible to develop an image sensor based on this technology. Although it was well known that silicon absorbs shorter wavelengths of light closer to its surface and longer wavelengths of light further from its surface, additional advances in image processing were necessary to make use of this characteristic in creating high-quality images. That task fell to Foveon Chief Scientist Dick Lyon, an image processing expert with a keen interest in photography.



Dick Lyon



Dick Merrill



The Sigma SD9 and The Foveon X3® direct image sensor.

### New products offering ultra-high image quality

Through careful experiments and analysis, Lyon performed theoretical research into the light absorption characteristics of silicon, determining a set of red, green, and blue spectral sensitivity curves for theoretical R, G, and B photodiodes at specific depths. Based on his research, Lyon concluded it was possible to use the technology to produce color images of a high quality that would satisfy the discerning professional.

Through the efforts of Dick Merrill, Dick Lyon, and many other engineers, Foveon produced the prototype of the Foveon X3® direct image sensor and continued to refine it. At last in 2002, through trial and error, creativity, and powerful resolve, Foveon completed the development of an image sensor ready for a commercial digital camera.

In October 2002, the Sigma SD9 camera debuted, featuring the Foveon X3® direct image sensor. It was and is the world's first single-chip, full-color image sensor.

### The Sigma SD series arrives

With its focus on creating lenses of the highest resolution possible, Sigma found the idea of using a resolution-reducing optical low-pass filter—on which conventional digital SLR cameras rely—completely unacceptable. A lens manufacturer with a philosophy of leveraging its own technology to offer the highest level of product quality, Sigma introduced the SD9, its first digital SLR camera and the first camera in the world to feature the Foveon X3® direct image sensor.

Sigma had accepted the risk of implementing a new technology and selected the Foveon X3® direct image sensor for its flagship digital SLR camera. Having no need for an optical low-pass filter, the Foveon X3® direct image sensor made full use of the potential of Sigma's high-resolution lenses to produce lifelike images rich in emotion and presence.

### Best lens, best image sensor

Having selected the Foveon X3® direct image sensor to bring out the full potential of its lenses,

Sigma once again dedicated itself to taking the quality of its lenses to a new level. Aiming not just for a high modulation transfer function (MTF) value, Sigma took a holistic approach to lens developing, pursuing the best photographs and best finished-image quality possible.

In November 2008, Sigma purchased Foveon, creator of the Foveon X3® direct image sensor. With strong synergy in goals and philosophy, the two companies make an ideal combination. In addition, Sigma had always focused on developing its own technology and manufacturing its own products, including everything from tiny screws to injection molds. As a unified entity, Sigma and Foveon have continued to pursue the industry's highest level of quality while offering products at a reasonable cost.

Having merged the best lens with the best image sensor, Sigma has not stopped asking the central question: what makes for the best overall photograph? Sigma has continued to pursue excellence in the body of the camera and all of the components to offer each photographer the best camera possible.





## The SD15 offers refined and balanced performance

### An even more complete resource for the photographer

A camera should convey the intention of the photographer accurately and directly. Developed with refinement in every detail, the SD15 is a digital SLR camera that combines simplicity with a superior balance and a delicate calibrated harmony among its parts.

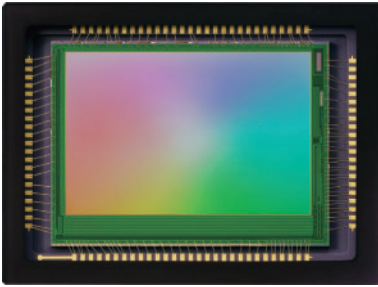
In pursuit of the best camera and the finest photographs, Sigma designed the SD15 to support the photographer in the widest range of circumstances possible and partner with the artist throughout a long and fruitful career. To this end, Sigma created the SD15 taking care to eliminate unnecessary complications of form or function.

### An elegant balance of functions

The SD15 offers an intuitive user interface that prepares the photographer for almost every conceivable environment. Sigma's philosophy of the camera allows the photographer to concentrate on performance alone, as all the necessary functions are immediately present in ideal balance—a difference detected instantly with both the hand and the eye.



## SIGMA SD15 technology



### **X3 Direct Image Sensor** 14 Megapixel Foveon X3 direct image sensor

The Foveon X3® direct image sensor captures all primary RGB colors at each and every pixel location. As the photo detectors are arranged in three layers, full and complete color is captured giving the images a three-dimensional feel.

### **Focal Plane Shutter**

#### **Durable focal plane shutter**

The durable focal plane shutter mechanism has a life cycle of over 100,000 exposures and dramatically reduces the amount of dust and dirt from the shutter mechanism. The photographer can enjoy taking pictures without worrying about dust and dirt adhering to the image sensor either from inside or outside the camera.

### **Two motor systems**

#### **Prevention of camera shake**

The two motor systems are driven by the mirror-drive and shutter charge which lowers the vibration of the mirror movement, preventing camera shake. The mirror lock-up mechanism raises the mirror, preventing further vibration when the shutter is released. The prevention of camera shake is especially effective for macro photography and when using ultra-telephoto lenses.

### **Improved buffer memory**

#### **21 frames can be captured continuously in RAW mode**

The SD15 is equipped with DDR II buffer memory which is twice as large in capacity as the SD14's buffer. The camera's high-speed image processing

circuits are capable of handling the large data files generated by the high-resolution 14 megapixel sensor. The SD15 features a continuous shooting speed of 3 frames per second with up to 21 RAW Images that can be captured in continuous shooting mode.

### **TRUE II**

#### **TRUE II image processing engine**

The SD15 incorporates the TRUE (Three-layer Responsive Ultimate Engine) II™ image processing engine which improves the processing speed and overall image quality. The unique image-processing algorithm provides high resolution power and reproduces high definition images with richly graduated tones. The improved processing speed of RAW and JPEG data provides ease of camera operation.

### **SD card**

#### **Unifying memory cards for added convenience**

The SD15 adopts the SD card (compatible with SDHC) which is also used in the DP series of Sigma cameras improving convenience to users of both camera systems.

### **AFE(Analog Front End)**

#### **Improving performance at high sensitivity**

AFE (Analog Front End) converts the color data, which full-color capture systems record, to a digital signal. This enables the camera to reproduce high definition and richly colored images.

### **ISO50 - 3200**

#### **Providing noiseless image processing**

The SD15 captures light effectively and ensures noiseless image processing. The image sensor provides high definition with rich, gradated tones.

### **5-point AF**

#### **Fast and precise focusing with 5-point AF**

The auto focus sensor features 5 focusing points (center, left, right, up and down) ensuring consistently fast and precise focusing. The AF metering

features a cross type sensor in the center of the screen. Selecting the AF point can be done manually or automatically.

### **Improved Auto Bracketing function** **Five frame Auto Bracketing function**

In addition to the usual three frame bracketing, five frame bracketing has now been added to the Auto Bracketing function. It allows users to get a more detailed and accurate exposure.

### **Wide coverage viewfinder**

#### **Bright viewfinder image by the incorporation of a pentaprism**



The SD15 features a pentaprism viewfinder with 98% (vertical and horizontal) coverage, 0.9x magnification and an 18mm eye point. A diopter adjustment is also equipped which can be adjusted from -3 to +1.5 dpt.

### **Exposure compensation function**

#### **More control of image exposure**

It is possible to adjust the camera's measured exposure value. When it is difficult to determine the exposure setting due to variable light conditions, it is possible to take a sequence of pictures of the

same subject at three or five different exposure levels. The shift value can be set in 1/3EV increments up to +/-3EV(3 stops) / +/-1.7EV(5 stops).

**New AE sensor**  
77-Segment AE Sensor

The SD15 features a new 77-segment AE sensor which allows advanced AE algorithms, improving exposure accuracy. Exact control and collaboration with the AF point ensures the camera exposes accurately even in difficult lighting conditions.

**77-segment Evaluative Metering**  
Evaluative Metering is suitable for general photography. Even under strong back lighting situations, the camera will give you the correct exposure.

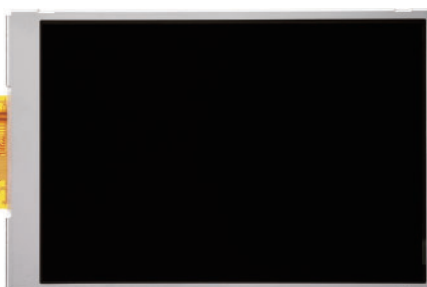
**Center Weighted Average Metering**  
The camera will measure the average luminance of the entire picture area with additional emphasis on the center area. This makes it ideal when using the optional exposure compensation.

**Center Area Metering**  
The camera will measure the luminance of 8.8% of the entire picture area. It is ideal for metering when the subject is backlit.

**Spot Metering**  
The camera will measure the luminance of 1% of the entire picture area. This mode is suitable when you wish to set the exposure for a small portion of the scene and ignore the influence of the rest of the scene.

**Dust Protector**  
Prevent dust from entering the camera body

Most digital SLR cameras are vulnerable to dust entering the body. If the dust and dirt adhere to the image sensor, it may appear in the pictures. The mount of the SD 15 is equipped with a dust protector and the sealing parts are incorporated around the mount, preventing dust from entering the body.



**Large 3.0" TFT Color LCD Monitor**  
Large, highly visible LCD screen

The SD15 camera features a 3.0 inch TFT color LCD monitor. This 460,000 pixel resolution LCD monitor benefits from a wide viewing angle, making it easy to check focusing and composition.

**OK Button setting**  
Customize the OK button

It is possible to allocate certain functions to the OK button for added convenience. These functions include Review Image, Rotate Image and Mark Image.

**Built-in flash with 17mm angle of coverage**  
Advanced flash photography

The Sigma SD15 camera's built-in flash offers an angle of coverage of 17mm (equivalent to 28mm with a 35mm camera) lens with a guide

Even if dust adheres to the image sensor, the dust protector can be removed easily for sensor cleaning.

**New, intuitive user interface**  
Simple user interface for faster camera operation

The improved user interface provides faster and more convenient operation of the camera. The Quick Set button activates the display of the most commonly used camera functions such as Color Mode, White Balance, Image Quality and Image Size on one screen. The 4-Way Controller ensures faster operation of these features.

The FUNC button enables functions such as Flash Mode and Synchro Mode.

number of 11. The Built-in flash can be synchronized to a shutter speed up to 1/180 sec. Incorporation of S-TTL automatic exposure system ensures the control of advanced flash photography.



**Backlit top LCD panel**  
The top LCD panel displays important information

The top LCD panel allows the photographer to quickly check camera information such as the resolution setting, metering mode, battery status and the number of images that can be recorded on the SD card. It also incorporates an orange backlight which enables the camera to be easily controlled in low light conditions.

**SIGMA Photo Pro 4.0**  
Image adjustments with simple operation

The supplied image processing software of SIGMA Photo Pro 4.0 converts RAW data quickly and easily. Incorporation of a new noise reduction algorithm reduces chroma and luminance noise. In addition, it is compatible with five Color Modes which apply a suitable setting to each shooting situation. The adjusted settings can be saved to the RAW file.

**Dedicated BP-21 Lithium-ion battery**  
Dedicated rechargeable battery with a large capacity

The dedicated BP-21 Lithium-ion battery is supplied as standard with the SD15. It is possible to shoot approximately 500 images on one full charge and takes about 120 minutes to fully charge with the supplied BC-21 Battery Charger. The optional AC Adapter SAC-4 enables the Sigma SD15 to obtain power from the main supply.



## Highest-quality components for masterpiece photographs

### The TRUE II image-processing engine joins the SD series.



The SD15 is the first in the SD series to offer the TRUE (Three-layer Responsive Ultimate Engine) II image-processing engine. Developed exclusively to operate in synergy with the Foveon X3® direct image sensor, TRUE II has been an extremely popular feature since it was first introduced on the Sigma DP2.

Based on Sigma's comprehensive understanding of the image-creation mechanism of the Foveon X3® direct image sensor, TRUE II uses a proprietary algorithm to help create subtle and lifelike images. As a result, the SD15 optimizes in-camera JPEG production, dramatically enhancing image quality and processing time.

TRUE II leverages the high-quality light signal captured by the Foveon X3® direct image sensor, applying Sigma's image-processing expertise to preserve the data under optimal conditions. It processes images quickly while maintaining their quality and emotional feel, helping to make the SD15 even more rewarding to use.

### Featuring JPEG and RAW image format modes

Using the JPEG setting allows the SD15 to finish captured images as JPEG files inside the camera according to a specially developed Sigma formula.

When these JPEG images match the photographer's vision, JPEG mode is an extremely powerful and convenient feature of the SD15.

JPEG images are ready to print when the SD15 is simply connected to the printer, and the image data files are ready to share with friends and family. For ease of connectivity and convenient sharing, JPEG mode is an excellent choice.

Creating JPEG files in this way, however, subjects data to irreversible compression, leaving little scope for image correction afterward. Using a camera that offers only in-camera JPEG processing can severely limit a photographer's artistic expression.

In RAW mode, the Foveon X3® direct image sensor outputs to .x3f RAW image format files, preserving the high-presence, high-quality, accurate, and balanced data that makes for truly emotional images and opens up new creative channels. Sigma believes that RAW mode allows photographers the clearest path to creative expression while supporting the best image quality and fostering the finest photographs.

### The .x3f RAW data format for highest-quality images

Sigma believes that a digital SLR camera should empower the photographer in two distinct stages: during image creation and during image processing. Photographers should have all of the resources necessary to recreate the ideal image retained in the mind's eye.

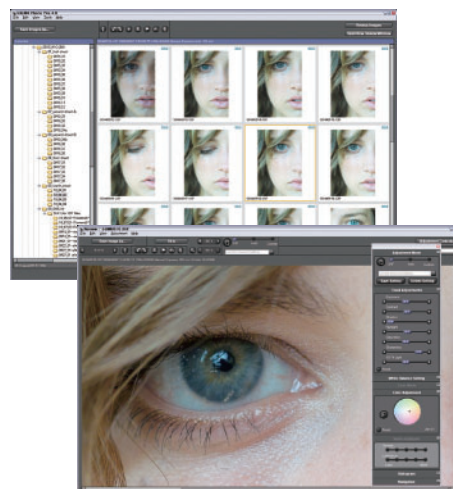
For this reason, the SD15 offers photographers the highest-quality data that is ready for professional finishing, broad in dynamic range and rich in harmony and color. For use in RAW mode in all of its cameras, Sigma has developed the .x3f format to capture the pure, rich data that a true full-color sensor has to offer.

Just as the best ingredients help create a gourmet dish, the finest data helps the photographer express individual skill and vision.

RAW data in the .x3f format is what photographers require to do the very best work that only they can do.

### SIGMA Photo Pro 4.0 offers darkroom-style freedom and control

Believing it to be the very best RAW data processing software available, Sigma offers SIGMA Photo Pro 4.0. With its intuitive and uncluttered interface, the application offers photographers exactly what they need to give their photographs a truly artistic and professional finish. Even those new to raw data processing will find it easy to use.



The Adjustment Controls Palette contains exposure, contrast, shadows, highlights, color saturation, sharpness, and the X3 Fill Light feature. A new noise reduction control area allows for reduction of both color noise and luminance noise. The Color Wheel allows for easy adjustment of photograph colors. Using these controls, photographers can easily process images to match their original artistic vision — just as though working in a classic darkroom.

SIGMA Photo Pro 4.0 is a perfect match to the .x3f format with its superior dynamic range. Its advanced tools enable artistic expression and the limitless enjoyment that photography has to offer.



## The artist's camera

### High-performance Sigma lenses.

Founded in 1961 as a lens manufacturer, Sigma has leveraged its original technologies to create unique products and assume its position as a leading photographic equipment provider, despite a relatively late start in the marketplace. Today, Sigma continues to be a leader in the highly competitive interchangeable lens market, thanks to its dedication to ongoing development of innovative products and an unstinting approach to quality control.

Today the standard for SLR cameras, the rear converter was originally a Sigma invention. In the past, a conversion lens could only be used with a single objective lens. In addition, the conversion lens came between the objective lens and the body, making the camera front-heavy. Sigma's innovation solved these issues, leading to the user-friendly lens system with which photographers are familiar today.

### A lens lineup designed for highest image quality.

Leveraging advanced optical design and precision manufacturing expertise, Sigma has developed for its SA mount lenses a flare- and



ghost-reducing super multi-layer coating, HSM (Hyper Sonic Motor), the OS (Optical Stabilizer) anti-shake compensation function, ELD (Extraordinary Low Dispersion) and SLD (Special Low Dispersion) glass, aspheric elements, and other cutting-edge components and features. All Sigma standard, wide-angle, telephoto, macro, fisheye, and other lenses are designed to make best use of the exceptional image quality of the SD15.

Seeking always to help photographers achieve the best results possible while enjoying the full delight of photography, Sigma currently produces more than 40 different types of lenses, as well as camera bodies that support lens function at the highest level. Developed and manufactured to meet the highest standards in the industry, Sigma's SA Mount lenses offer photographers the selection and reliable, responsive performance that make true creativity possible.



## OPTIONAL ACCESSORIES

There are many optional accessories available for the SD15 to complement the user's style of photography. These accessories ensure ease of use and comfortable shooting.



### Power Grip PG-21

This specially designed battery pack (PG-21) with a vertical grip is dedicated for SD15 use and can hold two BP-21 batteries.



### Remote Controller RS-31

The Remote control allows the photographer to take self-portraits or get into group shots. Used in conjunction with the Mirror Lock-Up function, it can reduce the possibility of image-blurring caused by camera shake, making it particularly useful for macro or telephoto shooting.

### Cable Release Switch CR-21

The CR-21 Cable Release Switch is ideal for long exposures or bulb shooting. It is also possible to lock the release button.



### ELECTRONIC FLASH EF-530 DG SUPER

The high power EF-530 DG Super flash enables S-TTL automatic flash metering. It has wireless flash connectivity and a high-speed synchronization function which can be used at high shutter speeds.



### ELECTRONIC FLASH EF-530 DG ST

This is a high-powered auto zoom flash featuring automatic flash metering using S-TTL operation. The flashgun allows perfect flash shots effortlessly and also includes an automatic zoom and bounce-head function.



### AC Adapter SAC-4

This is used to provide a constant electricity supply when shooting in the studio, or taking pictures indoors. It is also recommended for use when connecting the camera to your computer to transfer data.

# SIGMA SD15 | DIGITAL SINGLE LENS REFLEX CAMERA | PRINCIPAL SPECIFICATIONS

## FORMAT

Format	Interchangeable lens SLR camera
Compatible Lenses	SIGMA SA mount interchangeable lenses
Lens Mount	SIGMA SA bayonet mount
Angle of View	Equivalent to approx. 1.7 times the focal length of the lens (for 35mm cameras)

## IMAGE SENSOR

Format	Foveon X3® direct image sensor CMOS		
Image Sensor Size	20.7 x 13.8mm (0.8in. x 0.5in.)		
Number of Pixels	Total Pixel	14.45 MP	(2,688 x 1,792 x 3 layers)
	Effective Pixel	14.06 MP	(2,652 x 1,768 x 3 layers)
Aspect Ratio	3:2		

## RECORDING SYSTEM

Storage Media	SD Card/Compatible with SDHC, Multi Media Card
Still Image Format	Exif 2.21, DCF 2.0, DPOF
Recording Mode	Lossless compression RAW data(12-bit), JPEG (High, Medium, Low)
Color Mode	7 types (Standard, Vivid, Neutral, Portrait, Landscape, B&W, Sepia)

File Size	RAW	High	Approx.	15.4 MB	2,640 x 1,760
	JPEG	High	: Fine	Approx.	3.3 MB 2,640 x 1,760
: Normal			Approx.	1.9 MB 2,640 x 1,760	
: Basic			Approx.	1.4 MB 2,640 x 1,760	
	Medium	: Fine	Approx.	1.6 MB 1,872 x 1,248	
		: Normal	Approx.	0.9 MB 1,872 x 1,248	
		: Basic	Approx.	0.7 MB 1,872 x 1,248	
Low	: Fine	Approx.	0.8 MB 1,312 x 880		
	: Normal	Approx.	0.5 MB 1,312 x 880		
	: Basic	Approx.	0.3 MB 1,312 x 880		

## WHITE BALANCE

Settings	8 types (Auto, Daylight, Shade, Overcast, Incandescent, Fluorescent, Flash and Custom)
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## VIEWFINDER

Type	Pentaprism SLR viewfinder
Viewfinder Frame Coverage	98% vertical, 98% horizontal
Viewfinder Magnification	0.9x (50mmF1.4 - ∞)
Eye point	18mm
Diopter Adjustment Range	-3dpt - +1.5dpt
Focusing Screen	Fixed, all matt screen
Mirror	Quick return
Depth of Field Preview	Depth of field preview button

## AUTO FOCUS

Auto Focus Type	TTL phase difference detection system
AF Point	5-points (center AF point:cross type)
AF Operating Range	EV 0 to +18 (ISO100)
Focus Mode	Single AF, Continuous AF (with AF motion prediction function), Manual
AF Point Selection	Automatic Selection, Manual Selection
Active AF point indicator	Superimposed in viewfinder
AF Assist Light	White Color AF Assist Light
Focus Lock	Shutter Release Halfway-Down position

## SHUTTER

Shutter Type	Electronically Controlled Focal Plane Shutter
Shutter Speed	1/4000 - 30 sec., Bulb (up to 30 sec. With Extended Mode: 2 min.)
External Flash Sync.	X-Sync (1/180)

## FLASH

Type	Manual Pop-up Built-in flash
Built-in Flash Guide No.	GN11
Built-in Flash Coverage	17mm lens angle covered
Flash Metering System	S-TTL Auto Flash
Flash Compensation	± 3EV (1/3 stop increments)
Compatible Flashguns	EF-530DG SUPER, EF-530DG ST, EM-140 DG
Sync Terminal	Available
Connectivity	Hot shoe (contact X synchronization at 1/180 sec. or less, with dedicated flash linking contact)

## EXPOSURE CONTROL

Metering Systems	77 segment Evaluative Metering, Spot Metering, Center Area Metering, Center-Weighted Average Metering
Metering Range	EV 1 to 20 (50mm F1.4 : ISO100)
Exposure Control System	[P] Program AE (Program Shift is possible), [S] Shutter Speed Priority AE, [A] Aperture Priority AE, [M] Manual
ISO Sensitivity	AUTO(ISO 100-200) : With Flash (ISO 100-400) Equivalent to ISO100, 200, 400, 800 and 1600 (ISO50 and ISO3200 with Extended Mode) ± 3 EV (in 1/3 Stop Increments)
Exposure Compensation	AE lock button is pressed or shutter release button is pressed halfway
AE Lock	With 3 frames bracketing : 1/3EV Stops Up to ± 3EV With 5 frames bracketing : 1/3EV Stops Up to ± 1.7EV
Auto Bracketing	

## DRIVE SYSTEM

Drive Modes	[1] Single, [2] Continuous, [3] Self-Timer (2sec./10sec.), [4] Mirror Lock-up
Continuous shooting speed	3 frames/second
Continuous buffer	21 frames

## DISPLAY

Top LCD	Shutter speed display, Aperture value display, Exposure meter display, Shooting capacity display, Exposure mode display, Battery status display, Remote controller mode display, Exposure compensation value display
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## LCD MONITOR

Type	TFT color LCD monitor
Monitor Size	3.0"
LCD Pixels	Approx. 460,000
Coverage	100%

## PLAYBACK

Reviewing Images	Single frame display, Multi display [9 frames], Zoom, Slide Show
Highlight Display	Available
Histogram	Available

## MENU

LCD Monitor Language	English / Japanese / German / French / Spanish / Italian / Chinese (Simplified) / Korean / Russian
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## INTERFACE

PC/IF	USB(USB2.0)
AUDIO/VIDEO	Video Out (NTSC/PAL)

## POWER SOURCE

Power	Li-ion Battery Pack BP-21, Battery Chager BC-21, AC Adapter SAC-4 (Optional)
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## DIMENSIONS AND WEIGHT

Dimensions	144mm/5.7"(W) X 107.3mm/4.2"(H) X 80.5mm/3.2"(D)
Weight	680g / 24oz (without battery and card)

## OPERATING ENVIRONMENT

Operating Temperature	0 - +40
Operating Humidity Range	85% or lower

## ACCESSORIES

- Li-ion Battery BP-21, • Battery Charger BC-21, • USB Cable, • Video Cable, • Neck Strap • Eye Cap, • Body Cap, • Eyepiece Cap, • SIGMA Photo Pro Disc, • SD15 Instruction Manual

## OPTIONAL ACCESSORIES

- Battery Grip : Power Grip PG-21, • AC Adapter : SAC-4, • Remote Controller : RS-31, • Cable Release Switch : CR-21, • Electronic Flash : EF-530 DG SUPER, EF-530 DG ST, EM-140 DG

The appearance and specifications are subject to change without notice.

[www.SIGMA-SD.com/SD15](http://www.SIGMA-SD.com/SD15)

**SIGMA**

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