

# SIGMA DP1x

THE SIGMA DP1  
A FULL SPEC COMPACT  
DIGITAL CAMERA WITH ALL  
THE POWER OF DSLR



The DP series:  
the world's only compact cameras  
with DSLR specifications.  
Following the breakthrough,  
an evolution to greater refinement:  
the SIGMA DP1x.

Trust your eye. Trust your hand,  
They know a good camera.



Sigma's DP cameras treat light and color with due respect. They don't change any of it. They don't lose any of it. The result? An amazing capacity to capture fine detail.

Unleash your creativity.  
Let your inner photographer see things in a new way.  
Do it all with this compact body.

We believe in photographing things as they really are. This shapes our concept of the way a camera should be. With the DP series, we're aiming to recapture the essence of the camera.

The DP1 that launched this initiative has now been reborn.

You remember the DP1? The little camera that could?  
It blew existing image-quality standards out of the water.  
It opened up new horizons for amateur photographers.  
And now it's even better.

The SIGMA DP1x.  
For the photographer who wants to capture genuine emotion.

# SIGMA DP1x

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A FULL SPEC COMPACT  
DIGITAL CAMERA WITH ALL  
THE POWER OF DSLR





## The revolution has gained refinement.

### The world's first full-spec compact

“A large sensor in a compact body.” Appearing all over the media, this phrase neatly summed up Sigma's DP series of high-performance, high image-quality compact cameras.

Ever since digital cameras ousted film cameras from their mainstream status, the image sensors used in compact cameras had been far smaller than those used in SLRs. Of course, photo sensor size plays a crucial role in determining image quality. This was true in the days of film, and it's just as true in the digital age. Yet compact cameras had been getting steadily smaller and lighter. Meanwhile, the all-important pursuit of higher image quality had become an afterthought, for reasons of cost and technological difficulties.

What's more, digital compacts were all about extra functions and more megapixels. Higher pixel-counts were achieved simply by making the pixels extremely small, so that more of them could be crammed in, while the sensor itself remained as small as ever. In terms of the essence of photographic expression, pixel counts don't really count. Yet competition on this front had reached fever pitch by the spring of 2008, when the Sigma DP1 made its long-awaited debut.

### The DP1 opened up new horizons

The DP1 was introduced as a compact digital camera with an SLR-sized image sensor. It was a camera that satisfied the artist's need for top image quality and yet was compact enough to take anywhere. This had always been the amateur photographer's dream. And a dream it remained, until Sigma boldly took up the challenge and overcame numerous challenges to make it happen.

That glimpse of unexpected beauty on your daily commute, early in the morning or late in the evening. The subtlety of human drama encountered on a street corner. The dewy petal of a nameless roadside flower. As anyone who loves photography could tell you, those crucial moments can't be contrived. There's only one place you find them: the often overlooked corners of ordinary life.

At Sigma, we have strong views about what a camera should be. Sensor size isn't our only obsession: we're also big on pioneering sensor design. That's why our DP cameras feature the Foveon X3® direct image sensor, which breaks

new ground by capturing the full complement of colors at each individual pixel location. Thanks to this sensor, our DP cameras produce distinctive images that combine exquisite vividness with astonishingly high definition, outclassing conventional digital image quality.

Thanks to the unique 3-D feel plus the clarity and sharpness, delivered by Sigma's proprietary three-layered Foveon X3® direct image sensor, the images created by the DP1 won acclaim from photographers all over the world. Their image quality was compared to that of a medium-format film camera rather than that of a DSLR. The rest is recent history: the DP1's formidable descriptive power not only made a worldwide splash, but also transcended the existing distinction between SLRs and compacts, creating the new “full-spec compact” category. There's just no doubt about it—the DP1 created quite a buzz in photographic circles.

### Sigma's photographic passion and principles

You wouldn't carry an SLR around unless you intended to shoot some serious photos. Pictures taken with an SLR have to be carefully set up, framed and posed. All sorts of complicated settings have to be fiddled with. That's how most people would think of an SLR. Yet Sigma took the essence of an SLR, and packed it, unabridged, into a compact body. We also included a generous dollop of extra high-performance functions. We gave the photographer more artistic control, and left more scope for creative expression.

With the introduction of the Sigma DP series, serious photography can now be part of your everyday routine. And that's not all: these cameras are the perfect fit for today's increasingly nonconformist, free-spirited users. They awaken the creativity within many photographers, often causing them to fall in love with photography all over again.

In its forms and workflows, photographic equipment changes with the times. Photographic expression is also subject to passing trends. What stays unchanged is the way a camera should be. A camera should slavishly follow your direction. It should respect your intention. And it should do this without losing sight of the essence of photography, namely, capturing your own personal sensory experience, the picture in your mind's eye—a single image only you could create. This is the fundamental concept underlying all of Sigma's evolving technological innovation.

# A Camera that Transforms Your Perception

## After the ground-breaking, the fine-tuning

The DP1 was the world's first truly full spec compact camera. It deserves to be remembered as the camera that launched Sigma's DP series. This truly high-performance compact camera was groundbreaking in that it featured an SLR-sized image sensor. However, precisely because it was so ground-breaking, it faced some challenges.

At Sigma, we believe that users should experience the joy of finessing their pictures, working with superb image quality. In line with this philosophy, we gave the DP1 a specification worthy of an SLR, based on RAW (X3 mode) output. We wanted to create a whole new DP world of our own. But we must admit that, as an instrument for taking photos, the DP1 was more of a breakthrough than a culmination.

We must also concede that the TRUE the first-generation image-processing engine featured in the DP1-processed the abundant image data output by the Foveon X3® direct image sensor at a speed that some found unsatisfactory. The DP1's early adopters may well have felt the need for enhancement.

## A more highly evolved version of the DP1

The concept behind the DP1—the first generation model remains unchanged in the DP1x. The new camera features the Foveon X3® direct image sensor, which provides astonishing definition, said to be on a par with that of medium format film. It also uses a specially designed ultra high-performance wide-angle lens equivalent to 28mm in a 35mm camera, which is even better than many high-performance interchangeable lenses used in SLRs.

We wanted the DP1x to deliver the special 3-D feel and texture that are the *raison d'être* of the DP series. That's why, rather than concentrating on a single index such as MTF, we aimed for all-round lens performance. As for image texture, which is determined by differences in focal length, F-number and other parameters, we took care to make the DP1x consistent with the rest of the DP series.

We also endowed the DP1x with the highly-acclaimed user interface and the TRUE II second-generation image

processing engine used in the DP2—the second release in the DP series. With more intuitive controls and dramatically improved operability and processing speeds, the DP1x is a more highly-evolved photographic instrument.

## The pleasures of perspective

The DP1x has an integral wide-angle lens equivalent to 28mm in a 35mm camera. Since its field angle is greater than that of the human eye, a wide-angle lens can be used to bring out perspective, adding dynamism and drama to your photographs.

This type of lens really comes into its own when shooting landscapes and buildings, where its distinctive perspective can be used to full advantage. It allows dynamic captures of clear blue skies, white fluffy clouds and deep crimson sunsets. Buildings, be they historical structures, stylish examples of modern architecture, or anything in between, can be cleverly framed for maximum interest, or captured in a thousand other cool ways.

## Breathing new inspiration into your photographic art

The wide-angle lens is also great for snapshots. For one thing, it has technical advantages—it's less susceptible to camera-shake and allows a greater depth of field. For another, its wide field angle gives you an edge when it comes to capturing subtle human interactions, or snatching that rare and unexpected photogenic moment that can show up in the most banal of everyday scenes.

Portraits are another genre you really should try with the wide-angle lens on the DP1x. The telephoto lens is the mainstream choice for this type of shot, so using a wide-angle lens adds a fresh twist right away. For a classic headshot, use portrait (vertical) orientation. Whether you shoot in portrait or landscape, you can inject a sense of depth and a dash of drama by cleverly incorporating the existing background, or by arranging background objects yourself.

Most photographers start out with an interest in using telephoto lenses. An obsession with wide-angle lenses tends to follow later. What gets them hooked on the wide-angle lens is its versatility and its infinite potential for artistic expression. This type of lens

brings all sorts of extraneous objects into the frame, so it can be tricky to master. The effort is more than repaid, however, by the extra scope for dramatic staging. In terms of sheer artistic enjoyment, the wide-angle lens gets more and more rewarding as you go up the learning curve.

## A lens that takes you back to basics

Like the other Sigma DP cameras, the DP1x uses a single-focus lens. As high-performance zoom lenses have become mainstream even in integral-lens cameras, this might seem an unusual choice.

Certainly, when you can only shoot from a certain spot, a high-magnification zoom lens is hard to beat: its extensive visual field conveniently covers the range from wide-angle to telephoto. If you've ever struggled to take pictures with a single-focus lens that has the wrong field angle, you'll know just how frustrating it can be.

And yet, the single-focus lens has an elegance all of its own. Give it some serious attention, and it will repay the favor by taking you right back to the basics of photography. Choosing the subject. Finding the best angle. Framing the shot in the best way possible. Considering the light and shadow falling on the subject. Taking account of the colors. This is what photography is all about. In Sigma's philosophy, there's only one way to take a picture that is truly your own. You have to establish your personal, subjective relationship with the subject. And that means making all the artistic decisions yourself.

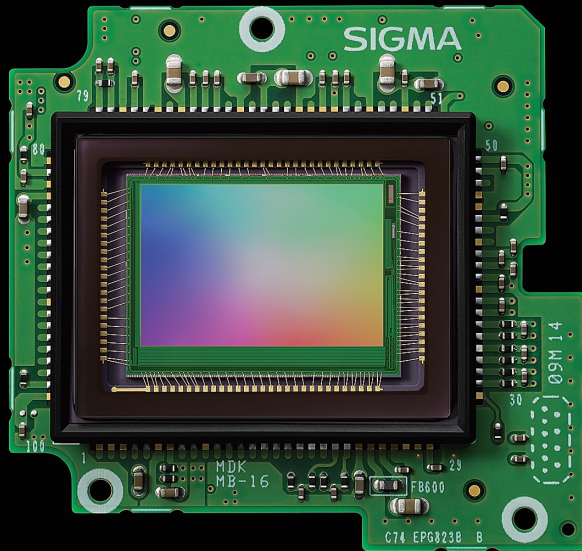
## A camera that trains your artistic eye

Shooting with a single-focus lens forces you to frame the shot by moving your physical position. With a camera that automatically selects the best field angle for the subject, it wouldn't really matter where you positioned yourself. With a single-focus lens, however, actively searching for the best way to frame the shot makes you rethink your old habits. This prompts you to re-establish a new, more authentic, more personal relationship with photography.

Rediscover the joy of photography. Unleash your inner artist with the DP1x.

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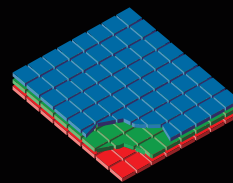


The DP1x's Foveon X3® direct image sensor utilizes the special features of silicon, which is penetrated to different depths by different wavelengths of light, to successfully achieve full-color capture for the first time ever in a single-chip configuration. No color filter is required.

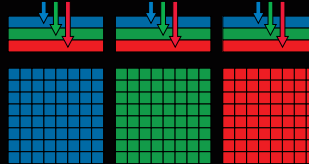
Since the X3 can capture all the color information in its three layers, the aforementioned late-stage color interpolation necessitated by the Bayer filter image-sensor is not required, and exquisite, nuanced color expression can be created in

pixel-location units. Compared with the color-fudging Bayer filter image sensor, the X3 takes color resolution to a new and truly amazing level.

Since it does not need a color filter, the direct image sensor does not generate color artefacts. This, of course, means that no optical low-pass filter is needed either. This full-color capture system can cope with all kinds of high-frequency areas, and capture the full complement of colors. That's why the results are both absolutely natural and truly exquisite.

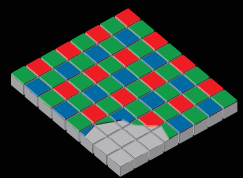


R: 100% G: 100% B: 100%

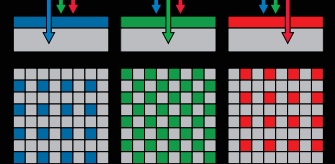


#### The Foveon X3® Sensor

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



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



#### The Bayer filter Image Sensor

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.



## The Fine Art of Capturing Detail

### Conventional digital cameras use monochrome sensors

You might be surprised to learn that the sensors in most digital cameras on the market, apart from Sigma's SD and DP series, are basically monochrome. Because monochrome sensors do not capture color data, a color filter with a mosaic of pixels for the three primary colors — red, blue and green (RGB) — is mounted on top so that color data can be represented. But each light-sensing photodiode has a one-color filter, which means that each pixel can only capture one color, and data for the other two colors is discarded.

Until this stage, of course, as in the Autochrome process, the RGB color "particles", or pixels, are recorded unmodified, forming the photo. A color interpolation process known as demosaicing is therefore performed in the latter stage of the image processing, and this restores the colors lost by individual pixels. This interpolation process basically consists of guessing the missing colors from the neighboring pixels, and adding them back in.

### Post-processing the image leads to a loss of detail

Having been continuously improved over an extended period, this image-processing method has matured to a certain extent, so the color interpolation is now performed fairly accurately. But because colors are interpolated from neighboring pixels, the subtle color nuances of the original subject are lost.

Conventional digital cameras using color filter arrays also generate color artifacts - colors not found in the original subject - during the

demosaicing processing. This is due to the action of the color filter (generally a Bayer filter), which tries to regulate the color distribution if the subject contains too much detail (high-frequency areas).

A conventional digital camera using a Bayer color filter has yet another filter, known as an optical low-pass filter, interposed between the lens and the sensor, in order to suppress color artifacts. The optical low-pass filter acts on the images resolved at a high level by the imaging lens, its job being to eliminate any detailed elements likely to generate color artifacts (high-frequency areas above a certain level), immediately before they reach the sensor. So it can effectively suppress the generation of color artifacts, but the downside is that it naturally reduces the resolution of the image.

### The Foveon X3® captures the very feeling in the air.

Images produced by Sigma's SD and DP series cameras have what's been called an "emotional quality". This phrase expresses the distinctive image-quality you only get with the Foveon X3® direct image sensor. In terms of clarity and fine detail, it goes far beyond the capabilities of conventional digital cameras. This level of image quality reproduces the scene you shot, right down to the feeling in the air. It's only possible in 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.

A conventional image-sensor, on the other hand, fudges the colors, and even cuts out high-frequency areas. To compensate, the sharpness

processing is ramped up to give some overall nuancing and a general impression of high resolution. This explains the tendency to generate images that, as a whole, have an unnatural feel. The colors can be adjusted to some extent in post-processing, but the detailed data previously lost cannot be recovered. No wonder the images produced by conventional digital cameras, despite their emphasized edges and clever nuancing, look so unnatural, so subtly wrong. It's all about basic principles.

### A sensor that discards none of the original light and color. And adds none either.

The DP1x's Foveon X3® direct image sensor utilizes the special features of silicon, which is penetrated to different depths by different wavelengths of light, to successfully achieve full-color capture for the first time ever in a single-chip configuration. No color filter is required. Like modern color film cameras, it uses a method that captures all the colors vertically.

Because it does not need color interpolation or a low-pass filter, the X3 image sensor produces images that are sharp right from the start. Therefore, sharpness processing in the latter stages of the image processing - creating edges and emphasizing contours - can be reduced to a minimum. This is why reviewers have evaluated the images captured by the X3 image sensor as having a truly nuanced, sharp feel, and praised them as very natural and demonstrating superior image quality.

The Foveon X3® direct image sensor reproduces pure, rich data and nothing else. The image quality it delivers is breathtaking. You really need to see it for yourself.



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## Bigger Sensor — Better Image Quality

### Film or digital: big photoreceptors mean high image quality.

The bigger the film size, the better the image quality. That's common knowledge in the world of film cameras. Even so, caught up in the powerful tide of digitization, and the feverish, single-minded competition to achieve the highest pixel count, most camera manufacturers seem to have lost sight of this obvious fact some time ago. Ever tried using a Brownie film camera to shoot high-quality photos? Then you'll have a vivid sense of the exponential increase in image quality as film size increases. Basically, the same goes for digital cameras. In other words, sensor performance being equal, the image quality of a digital camera is determined by the size of the image sensor, be it CCD, CMOS or any other type.

In the era of film cameras, both SLRs and compacts using the 35mm system used the same size of film, and image quality was down to lens performance. There used to be compact film cameras that delivered high image quality despite their small body size, and those compacts had a large following among photographers. When cameras made the switch from film to digital, however, it was taken for granted that DSLRs and digital compacts would use different image sensors.

### The digital camera of anyone's dreams

Implementing a large sensor presented all sorts of problems: the cost of the sensor, the difficulty of designing the lens, the high processing capacity required for the image-processing engine, enlarging the circuit board, increasing the memory capacity, and so on. Until these problems could be overcome, it was generally accepted that DSLRs used large sensors, and compacts used small ones. Eventually, these problems were effectively solved,

allowing sensors to be made smaller. However, this involved a trade-off: reduced image quality. From then on, photographers dreamed of a compact digital camera with an SLR-sized image sensor. A camera small and light enough to carry around everywhere, yet offering the technology for serious photography. Those dreams came true with Sigma's DP series.

### Startlingly evocative image quality

At 20.7 x 13.8mm, the DP1x's 14-megapixel image sensor, like the DP1's, is SLR-sized. This is about 12 times larger than the 1- to 2.5-inch sensor, and 7 times larger than a 1- to 1.8-inch sensor used in a conventional digital compact. This generous size takes the DP1x's image quality to a different dimension.

Picture this. Light traveling through a small lens is captured by a small sensor and turned into an image. Light traveling through a large lens is captured by a large sensor and turned into an image. What's the difference between these two images? Essentially, it's a difference in quality. In the case of the small image sensor, the image is magnified by a high ratio when it's printed or displayed on a computer screen. This makes it tricky to reproduce the dynamism and 3-D feel of the subject. Like the other DP cameras, the DP1x does just that, by using a large integral image sensor.

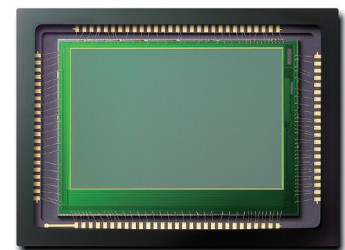
### The natural blurring effect you get with an SLR.

The small size of the image sensor used in a conventional compact digital camera explains why it captures rather flat, unmodulated images. If the image sensor is small, the focal length of the lens is short. The shorter the focal length of the lens, the greater the depth of field – in other words, the greater the range of distances over which the

lens can focus. The prosaic quality of the images captured by an ordinary compact digital camera is caused by the depth of field characteristic of a small image sensor: the lens focuses evenly on everything between the subject and the background, eliminating any cadence within the image. Thanks to its DSLR sized sensor, the DP1x can achieve SLR-worthy natural blurring effects, even at an aperture of F4.

Images of this astonishing quality and richness are only possible with a large sensor. You really need to see them for yourself.

Image Sensor Size Comparison



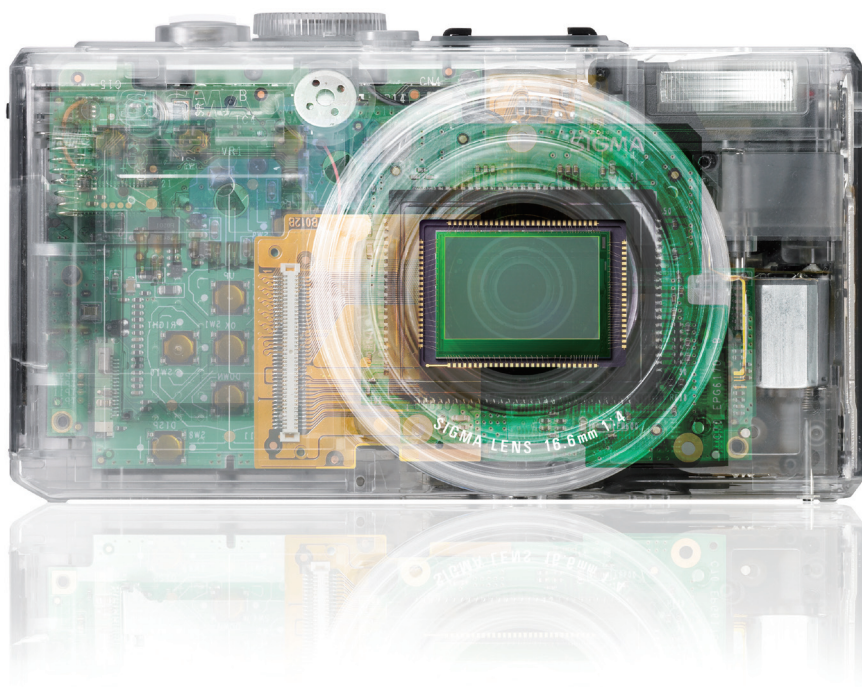
SIGMA DP1x's Direct Image Sensor



Conventional Compact Digital Camera's Image Sensor

The DP1x has an integral 14 megapixel, SLR-sized (20.7 x 13.8mm) image sensor. This is about 12 times larger than 1- to 2.5-inch sensor, and 7 times larger than a 1- to 1.8-inch sensor used in a conventional compact digital camera. This generous size takes the DP1x's image quality to a different dimension. What's more, the pixel pitch of the image sensor is a generous 7.8Qm. An ordinary compact digital camera delivers "high quality" with a high pixel count achieved simply by dividing up the sensor into smaller sections. In the DP1x, however, the large photodiodes deployed at a large pixel pitch capture pure, rich light efficiently, so the image signal is superb right from the start. This gives the DP1x its high resolution and richly graduated tones.





This photograph shows the approximate dimensions of the Sigma DP1x.



# A Lens that Sees with Crystal Clarity

## A photo is only as good as the lens it was taken with.

When it comes to photographic expression, the lens is the most crucial element. This is true of any camera, film or digital, and it remains just as true in any age. Observing the advances in digital image processing technology designed to compensate for lens aberrations, you would think that digital image compensation was the answer to everything. However, no matter how far digital image processing technology advances, it will never rival the descriptive power of an excellent lens. Some might argue that an adequate lens is all you need, as long as you have brilliant compensation technology. That's not our view. Sigma is a lens expert, and the DP1x's special lens is the culmination of years of lens-related R&D.

## Up there with a high-performance interchangeable lens

The DP1x's integral 16.6mm F4 lens (equivalent to 28mm on a 35mm film camera) is built to the same design as the DP1's, and has the same outstanding descriptive power. It may be small, but it's a high-performance wide-angle single-focus lens designed to the standards of interchangeable SLR lenses. Manufactured to exacting standards, large-diameter (14.5mm) aspherical glass molds are arranged in the fourth group. Besides achieving high-resolution and high-contrast performance, we have succeeded in storing the whole lens unit in a compact lens barrel. Its MTF - the value indicating lens performance - is on a par with that of the interchangeable lenses used in SLR cameras.

## Adapting SLR lens technology for our own purposes

The lens we've given the DP1x is of the retro focus type, typically used in wide-angle lenses for SLRs. Besides having the telecentricity so important in lenses for digital cameras, retro focus lenses capture plenty of peripheral

brightness. The lens specially designed for the DP1x takes full advantage of this property, successfully ensuring that the light volume stays the same right to the periphery, while also minimizing astigmatism and field curvature.

The disadvantage of the retro focus lens, however, is that its back focus is longer than its focal length, and this inevitably increases the total length of the lens. In order to keep the total length as short as possible while still delivering high image quality, the rear elements of the DP1x lens include glass-mold aspherical lenses with a high refractive index. This has successfully shortened the total length while reducing the number of lenses used, and maintaining high performance. The use of aspherical glass-mold lenses also enables advanced correction of astigmatism and comatic aberration.

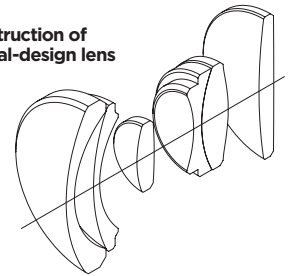
## A lens for full photographic expression

The DP lens uses the Super Multi-Layer Coating Sigma has developed over many years of manufacturing interchangeable lenses for digital cameras. Despite the compactness of the lens-barrel, flare and ghosting can be effectively suppressed even when shooting a backlit or semi-backlit scene, allowing more dramatic photographic expression.

We've also taken peripheral brightness into consideration: the drop in peripheral brightness at the outermost edge of the screen when the aperture is released is kept at -1EV, which is on a par with that of an interchangeable lens for a precision digital camera. So, even when you shoot blue skies whose brightness continues to the horizon, your pictures will be bright, clear, and free of light fall-off at the edges.

Encapsulating all the sophistication of Sigma's optical know-how, this super-high-performance lens puts SLR-level photographic expression in the palm of your hand. The image-quality it produces is something you really need to see for yourself.

## The construction of the special-design lens



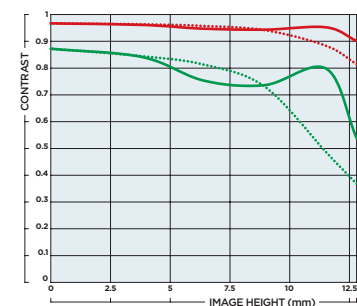
The lens used in the DP1x is of the retro focus type. Along with the telecentricity so important in lenses for digital cameras, retro focus lenses have a property that enables them to capture plenty of peripheral brightness. The lens specially designed for the DP1x takes full advantage of this property. As well as ensuring that the light volume stays the same right to the periphery, it also successfully minimizes astigmatism and field curvature.

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The DP1x lens features the rear-focus method. Since retro focus lenses tend to exhibit a high degree of aberration variation at close range, which makes it difficult to maintain performance, this lens employs a rear-focus drive system with a high capacity for aberration compensation.

The DP1x lens has also been treated with Sigma's proprietary Super Multi-Layer Coating. By executing high-quality, high-precision coating control at a high level, enabling the optimizing of a higher angle of incidence, Sigma has succeeded in minimizing the ghosting and flare that cannot be prevented using conventional coating techniques.

**Sigma Lens 16.6mm F4 MTF Chart**



The MTF chart gives the results at the wide-open aperture.

## Photo-Processing that Delivers the “Wow” Factor



### The new “TRUE II” image-processing engine

The new TRUE II image-processing engine, specially developed for the Foveon X3®, was first implemented in the DP2, to high acclaim. We've also used it in the DP1x. Applying our exhaustive knowledge of the image-creation mechanism of the direct image sensor, we applied a proprietary algorithm to do full justice to its uniquely sophisticated 3-D rendering power, optimizing both the image-processing time and the in-camera image processing itself, and achieving a dramatic improvement in processing performance.

Having focused our efforts on optimizing and recording the pure, rich signal captured by the sensor, we were determined that the optimal image quality we had pursued throughout our development of SLRs would be fully reproduced throughout our DP series of compacts-with-a-big-difference. The rich optical signal captured by the groundbreaking direct image sensor needed to be translated into an information-rich image. We entrusted that crucial task to our new, improved TRUE II.

### In JPEG mode, images are finished at Sigma's discretion

JPEG images captured by the DP1x are photos finished in what Sigma considers the most appropriate way. If you find that the photos you take in JPEG mode look the way you intended, then by all means enjoy

the ease and convenience of the JPEG setting. Your JPEG images are ready to print – just plug the camera into your printer – and the image data files are ready to share with your friends and family. If you want email-friendly image files that can be transferred straight from your camera, JPEG mode wins hands-down on convenience.

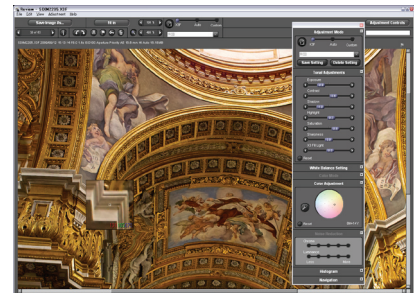
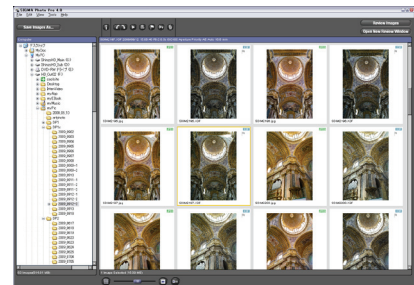
However, when you create a JPEG file, the data is subjected to irreversible compression, which leaves very little scope for image-correction afterwards. And here's the rub: if you only shoot JPEG mode, you may find it very difficult to reproduce the photo you saw in your mind's eye, which is your own personal sensory experience. If you've ever used a conventional compact digital camera that only has JPEG mode, you'll know how unsatisfying the results can be. Unfortunately, it can be extremely difficult to fully express your artistic vision using only JPEG images, which are created using the camera's automatic settings.

### SIGMA Photo Pro: the image-processing software that gets the most out of X3F (RAW) files

The DP1x has an X3F mode (RAW file format) in which all the image data captured by the sensor can be recorded without any significant deterioration in camera performance. If you want to do your own hands-on photo finishing, then for best results, we recommend SIGMA Photo Pro, the image-processing software designed exclusively for these X3F files.

You may think that “RAW data processing” sounds like something intimidatingly technical, requiring high levels of knowledge and skill. If so, just try SIGMA Photo Pro for yourself, and you'll soon find out how easy it really can be. SIGMA Photo Pro focuses on only those functions you really need for artistic photo finishing. Its interface is one of the most user-friendly and intuitive of the many RAW data-processing software packages on the market,

so even if you're a beginner, you'll find it simple to turn your images into finished photos. 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. Simply adjust these parameters and watch the image change in real time. That's all it takes to recreate the ideal photo you had in your mind's eye as you pressed the shutter.



### Sigma's proprietary X3F file format ensures outstanding texture and color

In fact, shooting in X3F format has other advantages too. In a digital camera, the image signal captured in RGB is recorded by being converted into what is known as YCbCr color space. The Y stands for brightness, and the CbCr stands for color difference. In an ordinary digital camera, a file format known as YCbCr 4:2:2 is used, where the color signal is set to half the brightness signal. This format was developed in order to send color information efficiently on the limited bandwidth available

back when color television was first developed. Designed on the principle that the human eye is less sensitive to color data than to brightness data, this historical format has survived intact to this day, and is still used as the mainstream format in digital cameras.

However, now that digital camera performance has improved so dramatically, people are using their photos in different ways, displaying enlargements on their computer screens, and large photo prints are mainstream. Today's output conditions are getting better and better. The old YCbCr 4:2:2 format was designed for efficient signal transmission, and not for high-quality output. To our way of thinking, this format is no longer adequate to meet the needs of all photographers.

### **X3F images preserve the balance of the natural data**

The JPEG files from the DP1x are output in YCbCr 4:2:2 in compliance with the Exchangeable image file format (Exif) specification, which is the standard specification for file formats. But in the direct image sensor, each pixel location captures the full complement of RGB color data, so in X3F files, which is the RAW data format, brightness data and color data can be kept in a 1:1 ratio without relying on interpolation. When this image is processed in SIGMA Photo Pro, even if it is saved as a JPEG, if the JPEG quality-setting selected is 7 to 12, it will be saved as YCbCr 4:4:4.

The DP1x's image quality, with its amazing vividness and texture, is really due to the X3F image data, which preserves the balance of the natural data. For the best photos with the best image quality, we definitely recommend shooting in X3F mode.

The X3 format offers outstanding imaging potential, with a rich and well-preserved dynamic range. You really need to experience it for yourself.



## An Instrument Made to Take Pictures



ELECTRONIC FLASH : EF-140 DG

SOFT CASE : SC-11

HOOD ADAPTER : HA-11

VIEW FINDER : VF-11

CLOSE-UP LENS : AML-1

HARD CASE : HC-11

### A user interface that's even more intuitive

The business of taking photos boils down to the skill of the photographer. The photograph is the canvas for the photographer's individual self-expression. Sigma creates equipment for delving into the essence of photography. Sigma's design policy is to empower the photographer to concentrate on the core task: taking pictures. Our top priority is to deliver the functionality and reliability this requires.

The DP1x was designed to be a more highly-evolved photographic instrument. So, besides giving it the same generous complement of extra functions as its predecessor, we've listened to the voice of the user, and added the same user interface that went down so well in the DP2. By changing the spec to make the controls more intuitive, we've dramatically improved its operability and responsiveness.

### A stylish new outlet for your inner artist

With its intuitive controls, and its increased portability and toughness, the DP1x is designed to be a serious photographic instrument you can take along anywhere, anytime, without thinking twice.

Simple yet distinctive, its compact body will draw admiring glances. Packed into a neatly pocket-sized package, it has a capacity to deliver uncannily high image quality that is bound to amaze. Doing away with the old DSLR-versus-compact distinction that cramped photographers' style more than they ever knew, the DP1x offers more artistic freedom, and new horizons in photographic expression, making the finest in photography far more accessible than ever before.

### ACCESSORIES

#### HOOD ADAPTER: HA-11

This set consists of a lens hood to block out extraneous light, plus a hood adapter, designed to fit a 46mm general-purpose lens filter.

#### VIEW FINDER: VF-11

This compact optical viewfinder mounts on the camera's hot shoe. It comes with a frame equivalent to 28mm on a 35mm SLR.

#### ELECTRONIC FLASH: EF-140 DG

This compact external flashgun was created exclusively for the DP series. With a guide number 2.4 times the camera's built-in flash, it extends your shooting range.

#### CLOSE-UP LENS: AML-1

Mount this lens on the Hood Adapter HA-11 (sold separately) for easy close-up photography. The exclusive design delivers outstanding image quality from the center of the screen right to the edges.

#### HARD CASE: HC-11

This dedicated hard case is specifically designed to protect the DP1x from damage while it travels around with you. Made from high-quality black leather, it takes on a distinguished-looking patina with prolonged use. Just remove the outer casing and you're ready to shoot.

#### Soft Case: SC-11

This soft case will hold the DP1x with the Hood Adapter HA-11 and the Viewfinder VF-11 still mounted. Made of Neoprene fabric, it's superbly stretchy, and provides an outstanding level of cushioning protection.

#### AC Adapter: SAC-3

With this AC Adapter, the DP1x can be plugged into the power outlets in your home. We recommend doing this before using your DP1x for an extended period to take or display pictures, or when connecting it to your computer.



SIGMA  
VF-11

POWER

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[Person icon]  
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DP1x

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MENU

FOCUS

SIGMA

# SIGMA DP1x COMPACT DIGITAL CAMERA : PRINCIPAL SPECIFICATIONS



## IMAGE SENSOR

<b>Format</b>	FOVEON X3® Direct Image Sensor (CMOS)		
<b>Image Sensor Size</b>	20.7 x 13.8mm (0.8in. x 0.5in.)		
<b>Number of Pixels</b>	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)
<b>Aspect Ratio</b>	3:2		

## LENS

<b>Focal Length</b>	16.6mm
<b>35mm Equivalent Focal Length</b>	28mm
<b>Maximum Aperture</b>	F4
<b>Lens Construction</b>	5 Groups, 6 Elements
<b>Shooting Range</b>	30cm - ∞ (Full Mode), 50cm - ∞

## RECORDING SYSTEM

<b>Storage Media</b>	SD Card/Compatible with SDHC, Multi Media Card
<b>Recording Format</b>	Exif 2.21, DCF 2.0, DPOF
<b>Recording Mode</b>	Lossless compression RAW data (12-bit), JPEG (High, Wide, Medium, Low), Movie (AVI), Voice memo to still images (10 sec./30 sec.), Voice recording (WAV)

## File Size / Still

<b>RAW High</b>	Approx.	15.4 MB	2,640 x 1,760
<b>JPEG High</b>	: 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
<b>Wide</b>	: Fine	Approx. 2.7 MB	2,640 x 1,485
	: Normal	Approx. 1.6 MB	2,640 x 1,485
	: Basic	Approx. 1.2 MB	2,640 x 1,485
<b>Medium</b>	: 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
<b>Low</b>	: 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

## File Size / Movie

QVGA : 320 x 240 (30 Frames Per Second)
"Approximately 30 minutes is possible with a 1GB SD Card."

## ISO SENSITIVITY

<b>Settings</b>	AUTO (ISO100-ISO 200): With Flash (ISO 100-ISO 400), ISO 50, ISO 100, ISO 200, ISO 400, ISO 800 (ISO 1600, ISO 3200 in Raw mode only)
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## COLOR MODE

<b>Settings</b>	7 types (Standard, Vivid, Neutral, Portrait, Landscape, B&W, Sepia)
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## WHITE BALANCE

<b>Settings</b>	8 types (Auto, Daylight, Shade, Overcast, Incandescent, Fluorescent, Flash, Custom)
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## AUTO FOCUS

<b>Auto Focus Type</b>	Contrast Detection Type
<b>AF Point</b>	9-Points
<b>AF Point Selection</b>	Selection of 1 point from 9 points
<b>Focus Lock</b>	Shutter release halfway-down position
<b>Manual Focus</b>	Dial Type

## DRIVE SYSTEM

<b>Drive Modes</b>	[1] Single, [2] Continuous, [3] Self-Timer (2sec./10sec.)
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## SHUTTER

<b>Shutter Type</b>	Electronically Controlled Lens Shutter
<b>Shutter Speed</b>	1/2000 - 15 sec. (The maximum shutter speed is varied depending on F value)

## EXPOSURE CONTROL

<b>Metering System</b>	TTL Full Aperture Metering [1] Evaluative Metering, [2] Center Weighted Average Metering, [3] Spot Metering
<b>Exposure Control System</b>	[P] Program AE, [S] Shutter Priority AE, [A] Aperture Priority AE, [M] Manual
<b>Exposure Compensation</b>	± 3 EV (in 1/3 Stop Increments)
<b>AE Lock</b>	AE Lock Button
<b>Auto Bracketing</b>	1/3EV Stops Up to ± 3EV Appropriate Exposure

## FLASH

<b>Built-in Flash Type</b>	Pop-up (Manual)
<b>Guide Number</b>	6 (ISO 100/m)
<b>Flash Coverage Range</b>	30cm to 2.1m (ISO 200)
<b>Flash Metering</b>	TTL type
<b>Flash Mode</b>	Forced Flash, Redeye Reduction, Slow Synchro, Flash Exposure Compensation
<b>External Flash Synch.</b>	Hotshoe (X Sync. Contact)

## LCD MONITOR

<b>Type</b>	TFT Color LCD Monitor
<b>Monitor Size</b>	2.5 inches
<b>LCD Pixels</b>	Approx. 230,000 pixels

## MENU

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

<b>PC/IF</b>	USB(USB2.0)
<b>AUDIO/VIDEO</b>	Video Out (NTSC/PAL), Audio Out (Monaural)

## POWER

<b>Power</b>	Li-ion Battery Pack BP-31, Battery Chager BC-31, AC Adapter SAC-3 (Optional)
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## DIMENSIONS AND WEIGHT

<b>Dimensions</b>	113.3mm/4.5"(W), 59.5mm/2.3"(H), 50.3mm/2"(D)
<b>Weight</b>	250g / 8.8oz

## ACCESSORIES

- Li-ion Battery BP-31, • Battery Charger BC-31, • Lens Cap LCP-11, • Neck Strap NS-11,  
• Soft Case CS-70, • Hot Shoe Cover HSC-11, • USB Cable, • Audio Video Cable,  
• SIGMA Photo Pro Disc, • Instruction Manual

## OPTIONAL ACCESSORIES

- AC Adapter SAC-3, • Hood Adapter HA-11, • View Finder VF-11,  
• DG UV 46mm, • DG WIDE CIRCULAR PL 46mm, • Close-up Lens AML-1,  
• ELECTRONIC FLASH EF-140 DG, • Soft Case SC-11, • Hard Case HC-11

The appearance, specifications and other aspects of this product are subject to change without notice for improvement purposes. Foveon X3® is a registered trademark of Foveon, Inc.

[www.SIGMA-DP.com/DP1x](http://www.SIGMA-DP.com/DP1x)

**SIGMA**

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Note: To help with the correct and safe of this product, please read the manual carefully first.

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