

The latest high image quality digital camera incorporating the new generation 46 megapixel Foveon X3 direct image sensor in a compact body 2012.2.8

SIGMA DP1 Merrill, SIGMA DP2 Merrill

The Sigma Corporation (CEO: Kazuto Yamaki) is pleased to announce the new SIGMA DP1 Merrill and SIGMA DP2 Merrill. These high image quality compact digital cameras feature a 46 megapixel (4800×3200×3 layers) Foveon X3 direct image sensor (generation-name “Merrill”) which is also incorporated in the new digital SLR Camera, SIGMA SD1 Merrill.

The SIGMA DP1 Merrill and SIGMA DP2 Merrill are the next generation of high image quality digital cameras which incorporate a newly developed 46 megapixel large image sensor in a compact body. The full-color Foveon X3 direct image sensor ensures outstanding resolution and natural rendering with rich gradation as well as a three-dimensional feel. Focus ring and custom Quick Set (QS) mode improve the user interface.

Developmental Background

In March 2008, the Sigma Corporation released the SIGMA DP1, the world's first compact digital camera incorporating a large image sensor equivalent to the one in SLR cameras, and it attracted a wide range of people including photo enthusiasts and professional photographers. After that, the Sigma Corporation released the SIGMA DP2 featuring 24.2mm F2.8 lens, equivalent to 41mm on a 35mm SLR camera, making it possible to choose the SIGMA DP1 for wide angle photography and the SIGMA DP2 for standard photography. As the latest models of SIGMA DP series, based on the basic concept, the SIGMA DP1 Merrill and SIGMA DP2 Merrill were developed in order to maximize the performance of the newly developed 46 megapixel large image sensor “Merrill”, as well as to incorporate dedicated high performance lenses and improve the user interface.

About the generation-name “Merrill”

The Foveon X3 direct Image Sensor uses technology originally developed by the late Dick Merrill (1949-2008), a brilliant engineer and talented photographer. This revolutionary image capture system reflects both the artistic and technological sides of Merrill's personality. As an expression of Sigma's passion for photography and in honor of Dick Merrill's genius, we have named the latest generation of the Foveon X3 direct Image Sensor the Foveon Merrill.

SIGMA DP Special Site : www.SIGMA-DP.com/



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46 megapixel. 23.5×15.7mm Full-color Foveon X3 Merrill sensor

The 23.5×15.7mm full-color Foveon X3 direct image sensor (Generation name “Merrill”), featured in the SIGMA DP Merrill series, incorporates 46 effective megapixels (4,800×3,200×3 layers) and 44 recording megapixels (4,704×3,136×3 layers). The Foveon X3 direct image sensor captures all primary RGB colors at each and every pixel location with 3 layers, ensuring the capture of full and complete color. Since color moiré is not generated, the use of a low-pass filter is not required, meaning light and color, are captured by the 46 megapixel 23.5×15.7mm full-color X3 Merrill sensor with a three-dimensional feel.

Dual TRUE II image processing engine

The SIGMA DP Merrill series incorporate a dual “TRUE (Three-layer Responsive Ultimate Engine) II” image processing engine dedicated to Foveon X3 direct image sensor, and it improves the processing speed and overall quality of the final image. By incorporating two TRUE II processors, Sigma’s unique image-processing algorithm provides high resolution power and reproduces high definition images with richly graduated tones as well as a three-dimensional feel.

Exclusively designed high performance lenses

The exclusively designed lenses for the SIGMA DP Merrill series are developed to maximize the sensor performance. For the SIGMA DP1 Merrill, a 19mm F2.8 lens, equivalent to 28mm on a 35mm SLR camera, and for SIGMA DP2 Merrill, a 30mm F2.8 lens, equivalent to 45mm on a 35mm SLR camera. FLD (“F” Low Dispersion), which has a performance equal to fluorite glass, and molded glass aspherical lenses correct aberrations. The superior telecentric optical design improves image quality throughout the frame by passing on information about subjects to the sensor. The Super Multi Layer Coating reduces flare and ghosting, which makes it usable even

under severe conditions such as taking photos against or towards the sun.

RAW+JPEG format recording

The SIGMA DP Merrill series obtain a RAW data recording mode for retaining full image capture detail of the utmost quality captured through the direct image sensor, plus a JPEG recording format for convenience. The RAW data format provides pure data for high-resolution images, and uses lossless compression for more compact, yet uncompromised, data files. The RAW data format of the DP Merrill series keep brightness and color data in a 1:1 ratio without relying on interpolation. When the image is processed in SIGMA Photo Pro, it will preserve the balance of the natural data for the best photos with the best image quality. It is also possible to record RAW data and JPEG data simultaneously to provide more convenience.

SIGMA Photo Pro (supplied)

The supplied image processing software, "SIGMA Photo Pro", converts RAW data quickly and easily. It renders the full, 46 megapixel data. While looking at photographed images, it is possible to reder desired photographic expression by moving the slider from side to side. It incorporates functions such as a loupe, exposure pickr, print, JPEG conversion, and batch white balance settings.

Manual Focus

Manual Focus is available for use when autofocus or focus lock is not desired. It is possible to use the focus ring for focusing just like an SLR camera. It is also possible to magnify the display to ensure precise focusing.

Advanced User Interface

The custom quick set menu and the metallic comand dial are incorporated to improve usability. The diaphragm, shutter speed and menu can be changed quickly using the comand dial. The Quick Set (QS) menu which consists of the most commonly used functions can be easily displayed by pressing the QS button. It allows photographers to change the menu content and the order depending on their preferences.

Portable compact and lightweight body

The DP Merrill series have compact dimensions of 121.5mm (W) ×66.7mm (H) × 64.3mm (D), and lightweight of 340g (DP1 Merrill) 、 121.5mm (W) ×66.7mm (H) × 59.2mm (D), 330g (DP2 Merrill) . Supplied neck strap provides perfect mobility for candid photography.

SD card

The DP Merrill series adopt the SD Card (SDHC compatible) which is compact and easy to carry.

Large, highly visible 3.0" TFT color LCD Monitor

The DP Merrill series feature a 3.0 inch TFT color monitor which ensures a great visibility even outside in the daytime. This approximately 920,000 pixel resolution LCD

monitor benefits from a wide viewing angle, making it easy to capture details and to check focusing and composition.

Hot Shoe

The DP Merrill series cameras are equipped with a hot shoe, allowing use of the dedicated external flashgun EF-140 DG (optional) as well as SIGMA electronic flashguns for SD series such as EF-610 DG Super (optional) and EF-610 DG ST (optional).

Dedicated lens hood

The dedicated bayonet lens hood can be attached to block out extraneous light.

* A hood adapter is sold separately

Movie Mode

Movies can be recorded with VGA (640×480) size. The number of shooting frames per second is 30 frames.

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SIGMA DP Merrill : Major Specifications

Image Sensor Foveon X3® direct image sensor (CMOS)

Image Size 23.5×15.7mm

Number of Pixels Total Pixels: 48MP

Effective Pixels: 46MP(4,800×3,200×3)

Aspect Ratio 3:2

DP1 Merrill

DP2 Merrill

Focal Length 19mm

30mm

35mm Equivalent Focal Format Approx. 28mm

Approx. 45mm

Maximum Aperture F2.8

F2.8

Number of Diaphragm Blades 9 Blades

9 Blades

Lens Construction 9 Elements in 8 Groups

8 Elements in 6 Groups

Minimum Focusing Distance	20cm		28cm	
Maximum Magnification Shooting	1:8.4		1:7.6	
Storage Media	SD Card / Compatible with SDHC, Multi Media Card			
Recording Mode	Lossless compression RAW data (12-bit, High, Medium, Low), JPEG (High, Medium, Low), RAW+JPEG, Movie (motion jpeg), Voice memo to still images (10sec.)			
File Size / Still	RAW	High	4,704×3,136×3 (Approx. 45MB)	
		Medium	3,264×2,176×3 (Approx. 24MB)	
		Low	2,336×1,568×3 (Approx. 12MB)	
	JPEG	High	Fine	4,704×3,136 (Approx. 10MB)
			Normal	4,704×3,136 (Approx. 5.6MB)
			Basic	4,704×3,136 (Approx. 4.2MB)
		Medium	Fine	3,264×2,176 (Approx. 5MB)
			Normal	3,264×2,176 (Approx. 2.7MB)
			Basic	3,264×2,176 (Approx. 2MB)
	Low	Fine	2,336×1,568 (Approx. 2.5MB)	
		Normal	2,336×1,568 (Approx. 1.4MB)	
		Basic	2,336×1,568 (Approx. 1MB)	
File Size / Movie	VGA:640×480 (30Frames Per Second)			
White Balance	8 types (Auto, Daylight, Shade, Overcast, Incandescent, Fluorescent, Flash, Custom)			
Color Mode	7 types (Standard, Vivid, Neutral, Portrait, Landscape, B&W, Sepia)			
Auto Focus Type	Contrast Detection Type			
AF Point	9-Points			
AF Point Selection	Automatic selection, Manual Selection			

Focus Lock	Shutter release halfway-down position, AE lock button	
Manual Focus	Ring Type	
Metering Systems	Evaluative Metering, Center-Weighted Average Metering, Spot Metering,	
Exposure Control System	(P) Program AE (Program Shift is possible), (S) Shutter Speed Priority AE, (A) Aperture Priority AE, (M) Manual	
Exposure Compensation	±3EV Appropriate Exposure (in 1/3 stop increments)	
AE Lock	AE lock button	
Auto Bracketing	With 3 flames bracketing:1/3EV Steps Up to ±3EV	
Drive Mode	Single, Continuous, Self-Timer (2sec. / 10sec.), Interval Timer	
Type	TFT color LCD monitor	
Monitor Size	3.0 inches	
LCD Pixels	Approx. 920,000 Pixels	
LCD Monitor Language	English / Japanese / German / French / Spanish / Italian / Chinese (Simplified) / Korean / Russian / Chinese (Traditional) / Nederlands / Polski / Português / Dansk / Svenska / Norsk / Suomi	
PC / IF	USB (USB2.0)	
Power	Li-ion Battery Pack BP-41, Battery Charger BC-41	
	DP1 Merrill	DP2 Merrill
Dimensions	(W) 121.5mm / 4.8"	(W) 121.5mm / 4.8"
	(H) 66.7mm / 2.6"	(H) 66.7mm / 2.6"
	(D) 64.3mm / 2.5"	(D) 59.2mm / 2.3"
Weight	340g / 12oz. (without batteries)	330g / 11.6oz. (without batteries)