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A | Art

SIGMA 50mm F1.4 DG HSM

In 2008, Sigma released a large diameter standard lens designed for digital SLRs, "SIGMA 50mm F1.4 EX DG HSM". At that time, products for film cameras were prevalent, yet we spent enormous effort to set a new benchmark for the 50mm lens that optimizes the characteristics of digital cameras, such as compensating peripheral brightness, controlling the point images in the corners, and improving the image drawing, not only around the focusing point, but also other areas in the image.

In recent years, as the DSLR evolves, development of image sensors for higher pixel size has created the photographers' desire for the lenses with superior performance. In 2012, Sigma has announced the "Art" line that achieves unsurpassed expressive performance to fulfill the higher requirement of photographers. The first lens from the "Art" line "SIGMA 35mm F1.4 DG HSM [A 012]" sought for uncompromising performance, and it resulted in great reviews as well as a lot of awards from all over the world. Based on the accumulated wisdom and know-how to establish the standard for our "Art" line series, we are proud to announce the development of the new high performance standard lens with a large diameter for this new era of superb image quality.

Corresponding AF Mounts: SIGMA, Canon, Sony and Nikon

Accessory: Case, Petal-Type Hood (LH830-02) supplied.

* The Appearance and specifications are subject to change without notice.

[Special Features]

1. Art line delivers high-level artistic expression

SIGMA is organizing all its interchangeable lenses into three product lines; Contemporary, Art, and Sports, where each line has a distinctive concept. Designed with a focus on sophisticated optical performance and abundant expressive power, our Art line delivers high-level artistic expression. With the astonishing rendering performance that meets the high standard, along with landscapes, portraits still-life, close-up, and casual snaps, they are perfect for the kind of photography that unleashes the inner artist. Ideal for studio photography, they offer just as much expressive scope when capturing architecture and starry skies and many other scenes.

2. Astonishing rendering performance

Utilizing know-how and the latest design technology accumulated through the past developments, it corrects the aberration thoroughly and achieves high resolution and astonishing rendering performance even near the edge of the image.

● Achieving both high resolution and beautiful bokeh

While pursuing a high level of resolution on the focused point, bokeh in front and behind the point of focus is carefully maintained to have soft rendering. Aberrations including sagittal coma flare and color distortion that affect the image quality are thoroughly corrected. From open aperture, high-definition rendering without blur is achieved. Moreover, by ensuring vignetting at the minimum and preventing color blur around the front and back of the focus point, it also achieves natural bokeh.

● Excellent correction of sagittal coma flare

It is ideal for a wide aperture standard lens to have a high rendering performance from open aperture throughout the entire image. For instance, the molded glass aspherical lens elements provide excellent correction to sagittal coma flare. It is perfect for astronomical photography and shooting of illumination because of the reduced blur on the point light sources near the edge of the image. It also creates an attractive bokeh in portraits and indoor shooting.

● Correction of axial chromatic aberration

For axial chromatic aberration that is hard to correct even during the image processing, SLD (Special Low Dispersion) glass elements are incorporated, ensuring high image quality throughout the entire focusing range. The lens achieves sharp and high contrast image rendering.

● Minimized distortion

It is not possible to compensate for distortion just by changing the aperture values. Thus, the lens development stage was vital in ensuring minimized distortion. The "SIGMA 50mm F1.4 DG HSM" has positioned each glass element to optimize the power layout at respective positions, and succeeded in minimizing distortion.

● Rich peripheral brightness

It secures very rich brightness in the peripheral areas, which can be a common problem for a lens with a large diameter. By positioning wide elements in the front group, it has improved the efficiency at large apertures. Since it is capable of minimizing vignetting, very clear depiction across the image is ensured.

● Designed to minimize flare and ghosting

Flare and ghosting were thoroughly measured and monitored from the lens development stage to establish an optical design which is resistant to strong incidental light such as backlight. The Super Multi-Layer Coating reduces flare and ghosting and provides sharp and high contrast images even in backlit conditions.

● Minimum focusing distance of 40cm

The lens incorporates a floating system that adjusts the distance between lens groups while focusing, thereby reducing the amount of lens movement required. This achieves a minimum focusing distance of 40cm and maximum magnification ratio of 1:5.6. As there is less variation in aberration at different shooting distances, the lens delivers high rendering performance throughout the entire focusing range.

3. Hyper Sonic Motor ensures High AF Speed

The HSM (Hyper Sonic Motor) ensures a silent, high-speed AF function. Optimizing AF algorithm, smoother AF is achieved. It also enables full-time manual focusing capability which allows sensible focus adjustment by simply rotating the focus ring.

4. New Customizing Option added to “SIGMA USB DOCK”

With the optional SIGMA USB DOCK and the dedicated special software “SIGMA Optimization Pro”, you can update your lens firmware, or adjust focus points by attaching this lens to a SIGMA USB DOCK connected to a computer.

[Other Features]

Incorporating Rounded Diaphragm

The 9 blade-rounded diaphragm creates an attractive blur to the out-of-focus areas of the image.

Design Concept

With the new product lines, supplied hoods incorporate rubber for the connected part. Lens caps and AF/MF switches are also newly designed in order to improve usability. For the parts inside, metals and a new material called TSC (Thermally Stable Composite), which works well with metals, are located to achieve products with high accuracy. The lens barrel includes the year of release, engraved for users to recognize when the lens was released.

Brass made bayonet mount

This lens incorporates a brass made bayonet mount which has both high accuracy and durability. A special treatment to reinforce its strength is applied to the surface giving it greater strength and making it highly resistant to long-term use.

Evaluation with Sigma’s own MTF measuring system “A1”

We used to measure lens performance with MTF measuring system using conventional sensors. However, we’ve now developed our own proprietary MTF (modulation transfer function) measuring

system (A1) using 46-megapixel Foveon direct image sensors. Even previously undetectable high-frequency details are now within the scope of our quality control inspections. The SIGMA 50mm F1.4 DG HSM will all be checked using this “A1” before they are shipped.

* A1: Aizu1

“Made in Japan”

All Sigma's manufacturing – right down to molds and parts – is carried out under an integrated production system, entirely in Japan. We are now one of the very few manufacturers whose products are solely "made in Japan". We like to think our products are somehow imbued with the essence of our homeland, blessed as it is with clean air and water, and focused, hard-working people. We pride ourselves on the authentic quality of Sigma products, born of a marriage between highly attuned expertise and intelligent, advanced technology. Our sophisticated products have satisfied professionals and lovers of photography all over the world, because our manufacturing is based on genuine craftsmanship, underpinned by the passion and pride of our experts.

Applicable for the Mount Conversion Service

As an experienced lens manufacturer that has been creating a diverse range of interchangeable lenses, we have started the innovative chargeable service “Mount Conversion Service”. With this service, the mount of your current SIGMA lenses can be changed to another mount of your choice. It gives a new life to your favorite lenses when you wish to use it on a different camera body.

*. This “Mount Conversion Service” is different from a normal repair. In order to apply for the service, please contact your nearest authorized subsidiary / distributor of SIGMA.

[**Specification**] For Sigma

Lens Construction: 13 elements in 8 groups | Minimum aperture: F16 | Filter size: ø77mm | Angle of view: 46.8° | Minimum focusing distance: 40cm / 15.7in. | Dimensions (Diameter x Length): ø85.4mm x 99.9mm / 3.4in. x 3.9in. | Number of diaphragm blades: 9 (Rounded diaphragm) | Maximum magnification ratio: 1:5.6 | Weight: TBD

[**Information**]

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