FF 15mm F4.5 Wide Angle MACRO 1:2

使用手册
Instruction Manual

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前言

真诚地感谢您选购 FF 15mm F4.5 Wide Angle MACRO 1:2全画幅微距镜头。支持无限远至0.5倍放大的拍摄范围，3枚ED镜片加持，可最大限度消除色散。无论是微距还是无限远，在对焦范围内都能获得极佳的成像画质，为用户提供了稳定可靠的支持。可拍摄到微小的物体，如小型昆虫、珠宝首饰等。

⚠ *为了操作上的安全，使用本产品前请务必详细阅读使用手册与注意事项，并将手册放在需要时容易取得的地方。如遇到不能解决的问题请通过售后电话获取技术支持。*

主要特色

- 1、FF 15mm F4.5 Wide Angle MACRO 1:2区别于传统的微距镜头，此款镜头在全画幅系统的高性能成像基础上，无穷远到微距都可以拍出高解析画质的照片，并且微距模式下达到了令人惊叹的0.5倍物体放大，3枚ED镜片加持，让此镜头在两倍放大成像下，也没有明显的色散。更高的放大倍率，使用户拥有更多的创作空间。

- 2、采用5片光阑叶片设计，全开时候光圈呈方形，可以拍摄出十针耀眼星芒。

- 3、内部有11组16枚镜片，能够带来高素质成像。外有全金属材料制成的机械结构，保障了镜头长期使用的耐用性。

注意事项

⚠ 安全注意事项

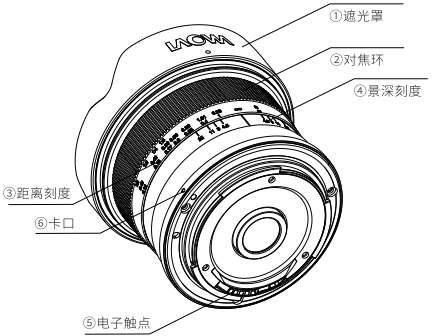
- 切勿自行拆解、修改或改装。当产品由于外力原因破损，切勿触碰外露部分或破损边缘处。
- 切勿放置于直射阳光下、封闭车辆中或其余高温处，否则过高的温度会使镜片和其他部件产生伸缩变形。
- 不使用镜头时，请将镜头前盖盖上或置于没有阳光照射处。凸透镜反射出的光线可能会聚集在附近物体上，导致发生火灾。
- 在逆光拍摄时，切勿将太阳置于画面中心，应该使太阳充分偏离画角，否则阳光会在相机内部聚集并导致火灾或灼伤眼睛。

注意事项

长期使用保养注意事项

- 避免触摸镜头表面，应用专用镜头布或气吹去除镜头表面的尘埃，不使用镜头时，应将镜头盖盖上。
- 使用镜头纸或镜头布清洁时，以螺旋的方式从中间向外擦拭镜头上的污垢以及指印。
- 镜头从寒冷的环境突然转移至温暖的环境时，镜头的外部以及内部镜片将会凝结水雾，所以在转移时应采取防潮保护措施。

各部件名称



使用说明

镜头安装

取下镜头后盖，将镜头卡口上的安装标记⑥对准相机座圈上的对应标记，随后将镜头插入机身座圈，根据所购买卡口的安装方式进行安装。安装时请不要用力过猛，以免导致卡口损伤。

镜头拆卸

关机后按住相机上的镜头释放按钮，依照所购买卡口的安装方向反向旋转镜头，随后将镜头从座圈中拔出。

对焦

此款镜头是全手动对焦镜头，合焦时，缓慢旋转对焦环②，直至合焦。
不要过猛过快地旋转对焦环，避免用力过度损坏对焦环部件。
镜头上的距离刻度③与景深刻度④是出于指导目的。实际焦点与景深可能同刻度标记稍有不同。
如需要非常精确的对焦，请在固定好相机位置的情况下使用最大光圈对焦，对焦完成后再旋至所需要的光圈值。

微距摄影模式

最大放大倍率为0.5倍，最近对焦距离为12.9cm

光圈使用

光圈在镜头上调节，根据拍摄环境和与所需要的景深，转动光圈环④来选择对应的光圈。
EF卡口为电子光圈设计，有CPU数据，可以记录光圈参数。
其他卡口无CPU数据，所以暂时无法记录光圈参数。

垫片安装与调试方法

对焦方法一：
放大倍率预先确定后再进行对焦
① 预先确定放大倍率，随后转动对焦环至所需的放大倍率刻度。
② 通过取景器或开启Live View（实时取景）功能观察画面，并前后平移相机进行粗略对焦直至确定合适的焦距。
③ 转动对焦环对物体进行精确对焦。

对焦方法二：
先构定拍摄画面，在通过取景器或开启Live View（实时取景）功能观察画面的同时，转动对焦环，构定拍摄画面后，进行方法一的②、③步骤。

在进行高放大倍率拍摄时，镜头的工作距离非常短，容易碰到拍摄物体，请小心拍摄。
放大倍率是指记录在传感器或胶片上的图像尺寸大小与拍摄物体的实际尺寸大小之间的比 例关系。

规格表

FF 15mm F4.5 Wide Angle MACRO 1:2	
画幅	全画幅
焦点距离	15mm
光圈范围	F4.5 - F32
视场角	110.5°
镜头结构	11组16枚（3片ED 3片高折射 2片非球面）
光阑叶片	5片
最近摄影距离（物像距离）	12.9cm
合焦方式	手动（MF）
滤镜尺寸	Φ62mm
镜头尺寸	ϕ70mm*47.7mm
重量	约308g（不含前后盖）
卡口	EF/F/RF/E/Z/L
自动光圈	E/Z/EF

Preface

Thank you very much for purchasing FF 15mm F4.5 Wide Angle MACRO 1:2 full frame macro lens. This lens can shoot from infinity to 0.5X magnification. With 3 ED glasses, it can maximize the elimination of chromatic dispersion. Whether it is macro or infinity, it can get excellent image quality in the focus range, providing users with stable and reliable support. It can take pictures of small objects, such as small insects, jewelry, etc.

⚠ *For operational safety, please read the manual and precautions carefully before using this product, and keep the manual at a place that is easily accessible when needed. If you encounter a problem that cannot be solved, please ask for technical support through email.*

Features

- 1.FF 15mm F4.5 Wide Angle MACRO 1:2 is different from traditional macro lens. On the basis of full frame system of high-performance imaging, this lens can achieve high resolution image quality from infinity to macro. Besides, under macro mode, it can get amazing 0.5X magnification of objects. With the help of 3 ED glasses, this lens has no obvious chromatic dispersion under 0.5X magnification. The higher magnification gives users more space for creation.

- 2.It adopts 5 aperture blades. When fully open, the aperture is square and ten-point dazzling sunstars can be produced.

- 3.This lens is constructed of 16 elements in 11 groups, which can bring high resolution imaging. The all-metal structure ensures durability of the lens for long-term use.

Precautions

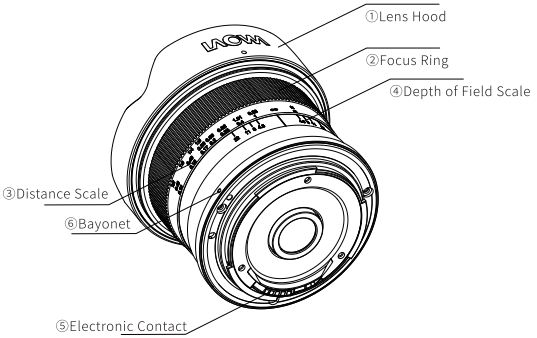
⚠ Safety Precautions

- Do not disassemble, modify the lens by yourself. Do not touch the internal parts that become exposed as the result of external force.
- Do not leave the lens where it will be exposed to high temperatures, such as in direct sunlight and an enclosed vehicle. Excessive heat may deform the glass elements and other parts of the lens.
- Whether it is attached to the camera or not, do not leave the lens under the sun without the lens cap attached. This is to prevent the lens from concentrating the sun' s rays, which could cause a fire.
- Do not place the sun in the frame center when shooting with backlight. Doing so might cause a fire or harm your eyes.

Maintenance Precautions

- Do not touch the surface of the lens directly. Brush off any dust with a blower. Wipe the surface with a cleaning cloth or a lens tissue.
- Try a circular motion from the center outward to remove oil, fingerprints and grime on the lens surface.
- If your lens is brought directly from a cold place to a warm place, condensation may appear on the lens. To avoid this, be sure to take some action to protect the lens.

Name of each part



To attach the Lens

Remove the rear lens cap. Align the mounting index ⑥ on the lens bayonet with the mounting index on the camera. Place the lens on the camera mount and attach the lens according to the proper installation method of the mount type. Do not use excessive force during installation to avoid damage to the bayonet.

To remove the lens

Turn the camera off. While pressing and holding the lens release button on the camera, rotate the lens in the reverse direction for attaching the lens until it stops, then detach the lens.

Focusing

This is a fully manual lens. Rotate the focus ring ② slowly to get focus. Turn the focus ring slowly and gently to prevent the focus mechanism from damage.
The distance scale ③ and depth of field scale ④ are for instructional purposes. Actual focus and DOF may slightly differ from those scale indications.
To get precise focus, it is recommended to focus wide open when the camera position is fixed. Get focus first, then set the desired aperture by turning the aperture ring.
For the ease of focusing, turn on the focus peaking on the camera. (Note that the function depends on camera models.)

Macro Photography Mode

The maximum magnification is 0.5X and the minimum focusing distance is 12.9cm.

Setting the Aperture

Aperture is set through the aperture ring on the lens. According to the shooting situation and the desired depth of field, rotate the aperture ring ④ on the lens to the corresponding aperture.
The EF mount version is designed with electronic aperture, which has CPU data and can record aperture values.
Other mount versions have no CPU data, therefore, the aperture values cannot be recorded.

Focusing Methods

Method 1 Focus after magnification is predetermined
①Determine magnification in advance, then turn the focus ring to the desired magnification scale.
②Check the frame by the viewfinder or [Live View] on the camera and pan the camera back and forth to roughly focus until the right focal length is determined.
③Rotate the focus ring to achieve precise focus.

Method 2
Set the frame first. Turn the focus ring while you are checking the image through the viewfinder or [Live View] on the camera. After setting the composition, perform steps ② and ③ of Method 1.

When shooting at high magnifications, the working distance of the lens is very short and it is easy to touch the shooting subject. Therefore, please be careful when shooting.
Magnification refers to the proportional relation between the size of the image recorded on the sensor or film and the actual size of the shooting subject.

Specifications

FF 15mm F4.5 Wide Angle MACRO 1:2	
Format Compatibility	FF
Focal Length	15mm
Aperture Range	F4.5 - F32
Angle of View	110.5°
Lens Structure	16 elements in 11 groups (3 ED , 3 ultra-high refractive index, 2 aspherical)
Aperture Blades	5
Min. Focusing Distance (Object Image Distance)	12.9cm
Focus Mode	Manual (MF)
Filter Thread	Φ62mm
Dimensions	ф70mm*47.7mm
Weight	About 308g (without front lens cap and rear lens cap)
Mounts	EF/F/RF/E/Z/L
AE	E/Z/EF