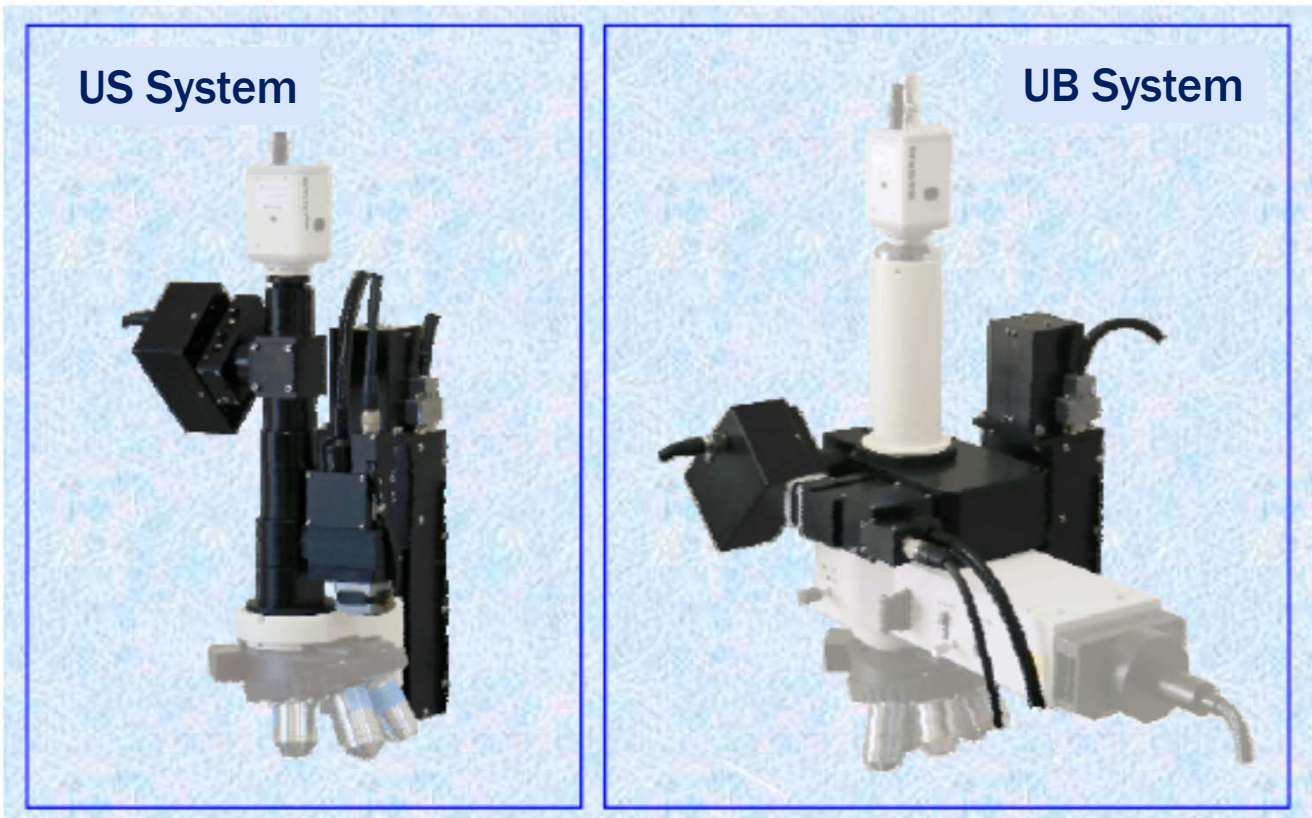
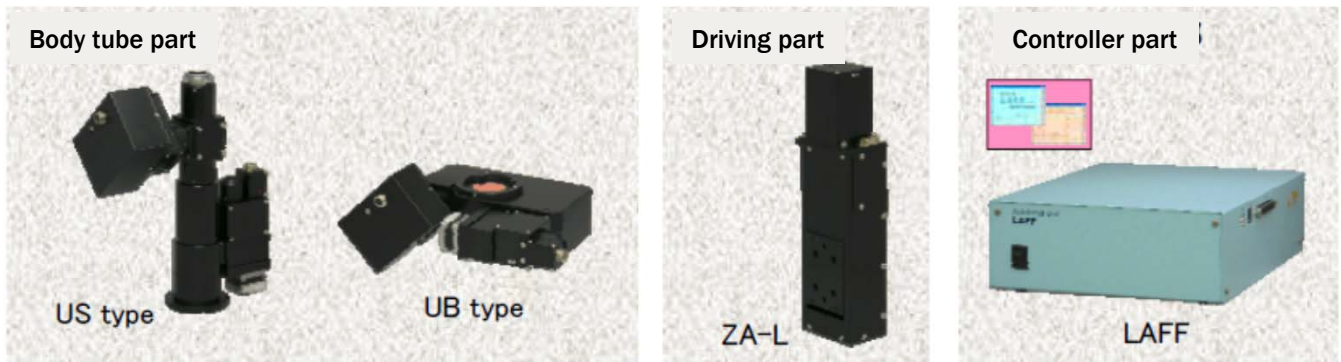


New line sensor method auto focus system that greatly exceeds performance that is existing and is all microscope AF devices.



■ Composition



It is possible to get the high-speed searching and the lower price by the combination with Nikon or Olympus microscope unit. The conception of the past line sensor method auto focus system was changed, also Faith AF system is achieved twice or more searching speed compared with the past by use of the original operation processing and two CCD line sensors. Faith proposes the better system with the customers, and possible to supply the technical support after the delivery. Please contact us about the details.

The lighting system etc. are separately needed according to the combination composition of the microscope.

■ Principle of operation

It projects the stripe pattern on the tested object by use of the pattern filter (AF pattern) for the auto focus, also catches the image in the line sensors.

First, it is projected the stripe of AF pattern on the tested object from the illumination source. The stripe pattern reflected on the tested object is taken into the image-taking device together with the image of object which is lighted by the illuminator. The stripe pattern divided by the beam splitter and the image on the tested object is taken into the line sensor. The stripe pattern split to the line sensor side and the image on the tested object are divided two of images through the optics system of optical path difference.

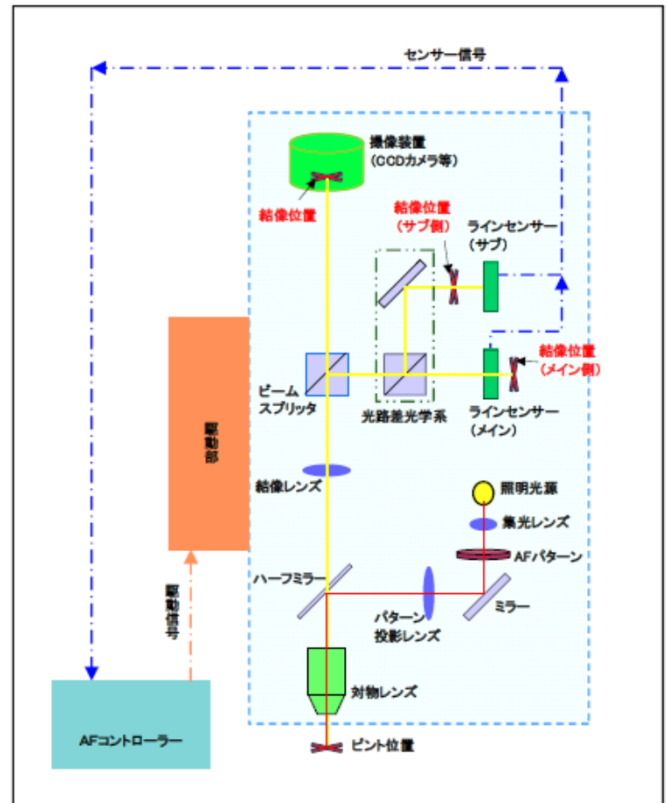
The line sensor received the imaging of long distance of image formation position is MAIN, the line sensor receiving the image of short distance is SUB.

The position in which the volume of signal of MAIN and SUB sensor may become the equal is assumed as a focus point. It controlled the driving unit by use of AF controller so that the volume of signal of MAIN and SUB sensor may become the equal.

Two kinds of the pattern methods are prepared as be-low. The visibility-pattern method is used at the outside of view so that the stripe pattern should not reflect into the image-taking device.

The IR-pattern method is used at the near-infrared band.

■ Basic specification



M o d e l	UB System	US - IR System	US System
Body Parts	UB type (Unit-Box) (IR Pattern)	US-IR type (Unit-Standard-IR) (IR Pattern)	US type (Unit-Standard) (Visibility pattern)
Driving Parts	ZA-L Distance : 4mm		
Control Part	LAFF Interface : USB / EXT.I/O AC100V~200V 1A~0.5A Application and attachment for adjustment		
Lighting part	Respondent story separately		
Microscope (Object lens)	Nikon CFI-series OLYMPUS UIS-series MITUTOYO M Plan Apo-series		
Observation method	Discernment view, Dark field of view, Differential interference		Discernment view
Lighting method	Co-axial illuminator		Co-axial illuminator
Magnification	1x (There is a sample condition) ~100x *		
Search speed	0.3sec (Object lens 20x, Search range ±200µm) *		
Trace speed	20µm/sec (Object lens 20x) *		
Target sample	Glass (LCD, Organic EL) 、 Plastic (Micro-lens, C-MOS) 、 Film (Film for LCD) Metal, Paper, *Liquid (*Part cannot correspond.)		

*The performance might not be able to be demonstrated depending on use conditions

- The above-mentioned is a bare-bones model. It corresponds to the special specification microscope and the microscope for the laser repair.
- Please acknowledge that the specification and the design, etc. might change for the product improvement without a previous notice.

Written contents are the things as of December, 2013.

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