EVIDENT

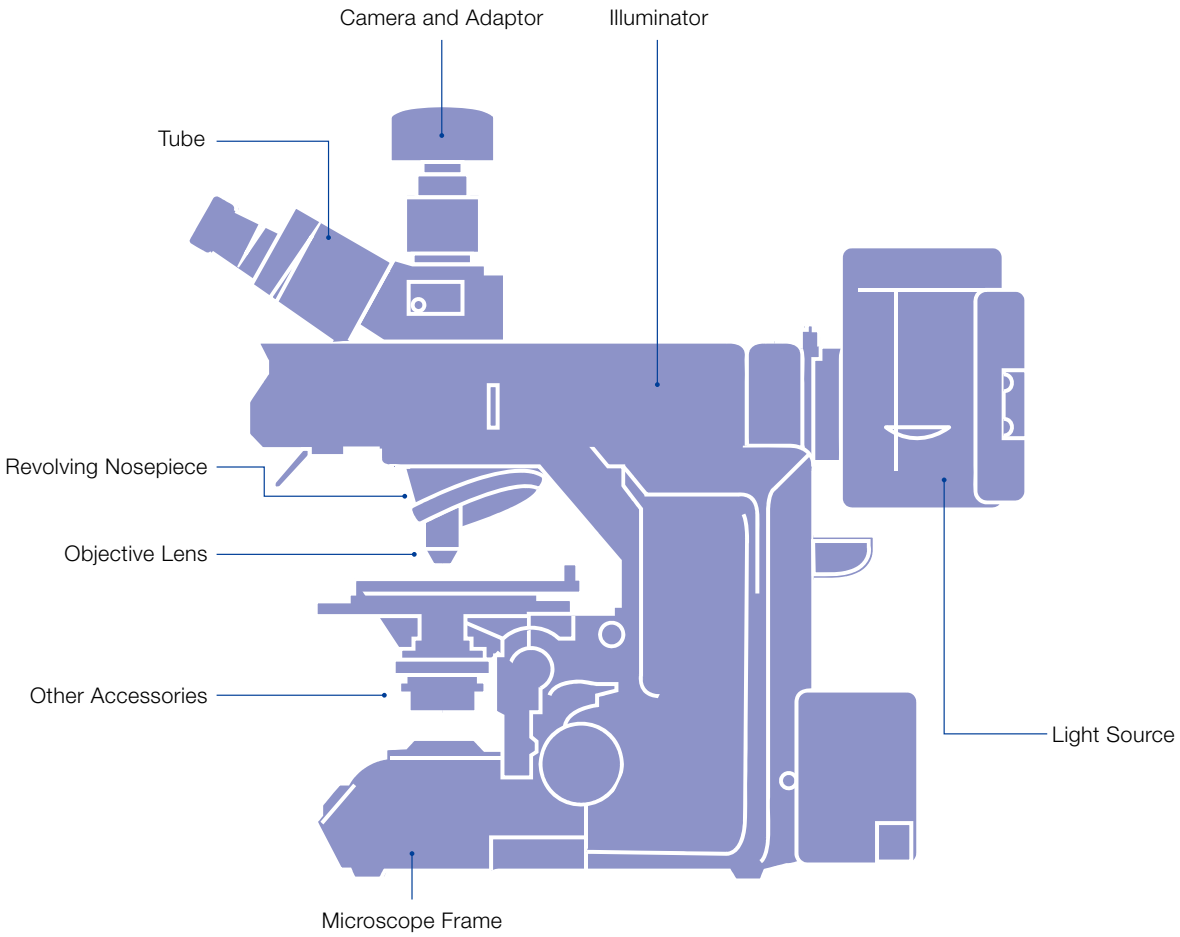
OEM Microscope Components

Solutions

Microscope Components for Advanced Optical Instruments

Solutions for High Performance Instruments

For nearly a century, Olympus built a reputation for producing high-quality optics, mechanical systems, and electronics. We offer more than 1,000 components to enable our OEM customers to build the systems they need. Our components helps enable the precision and quality of our customer's OEM systems as well as reducing the development cost and time-to-market for our customers.



* Please refer to "Microscope Components Guide" for detailed information and specifications.

Olympus Makes Your Development Process Simple and Efficient

Are you considering about integrating optical components or microscope assemblies into your equipment?
Olympus supports you from design to production with advanced technologies and support throughout the development process.

Beginning of the Project

Global reputation for providing OEM solutions

Olympus has established long-term relationships with more than 200 OEM customers globally in industrial and life science fields.

Design

Large variety of components

The modular microscope concept was devised by Olympus over 40 years ago. We select most appropriate components for your applications from our large, diverse product portfolio.

Evaluation

Global technical support

Our global technical support team works closely with Olympus R&D to provide detailed technical information to our customers.

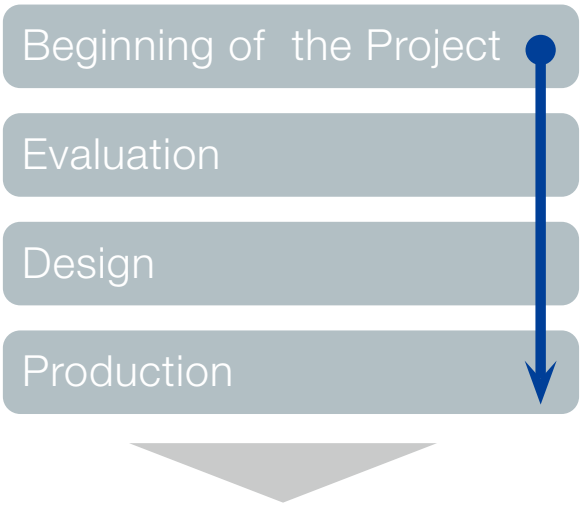
Production

Olympus' stringent quality control helps enable consistent performance

Our stringent quality control standards enable us to provide consistent quality throughout your product's lifecycle.

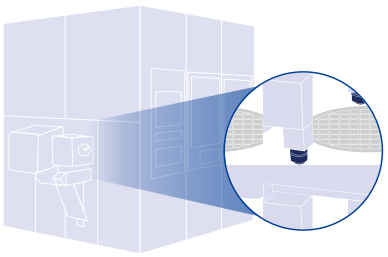
Beginning of the Project

Collaborate with a reliable and proven company

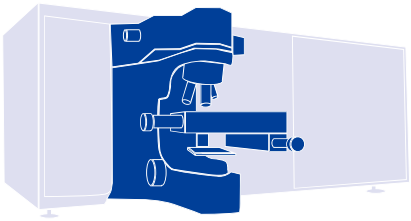


Product development can be challenging. Our large product portfolio and technical expertise enable us to help you choose the right equipment for your application and product design.

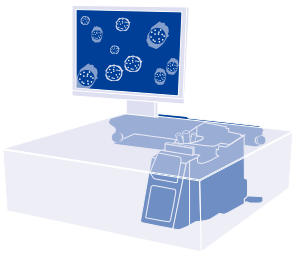
Olympus supports you in each project phase, utilizing our experience working with a range of equipment manufacturers.



Semiconductor equipment



Raman spectroscopy



Blood analyzer

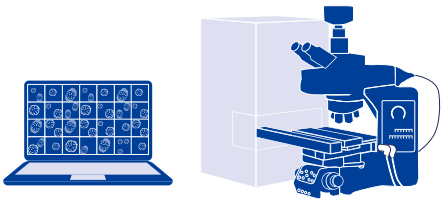


Image analysis system

Application References

Industrial field

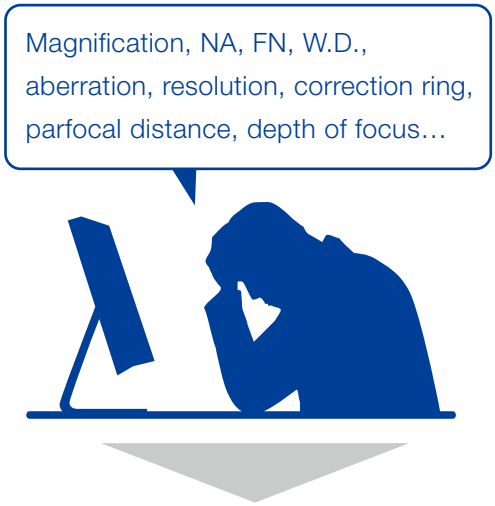
- Semiconductor front end equipment
- Semiconductor back end equipment
- Laser processing equipment
- Digital microscope
- Contamination analysis system
- Hardness tester
- Electronics inspection equipment
- White light interferometer
- Factory automation (FA)

Life science field

- DNA sequencer
- Digital pathology
- Cell screening and analysis
- Super resolution microscopy

* Our OEM partners are responsible for required product evaluation and regulatory compliance as a final product.

Most appropriate optics for your equipment

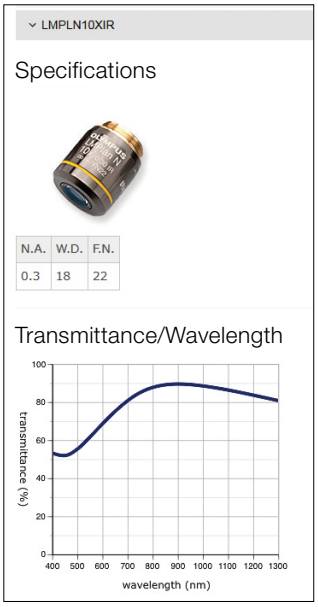


The performance of microscope optics directly effects the final quality of your equipment.

When considering which objectives to include in your product, there are many factors that must be considered, including numerical aperture (NA), aberration correction, cover glass thickness, working distance (W.D.), and field of view.

Our support team will help you meet demanding requirements with a selection of over 200 types of compact and lightweight objectives.

UIS2 objectives for industry



Specification information available on the Olympus website*1

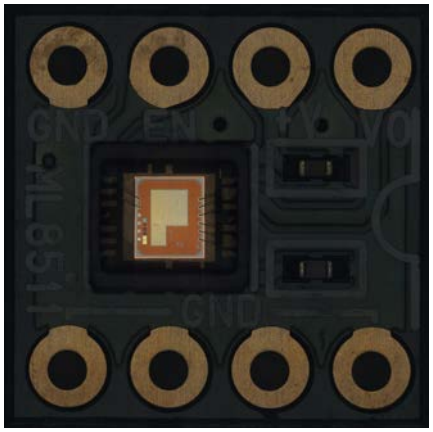
With a short 45 mm parfocal distance, UIS2 objected are compact and lightweight. They have exceptional optical performance, such as color reproducibility, and are recommended for system integration.

In addition, UIS2 objectives are infinity corrected with full aberration correction. This enables users to integrate the objective of their choice without sacrificing correction performance.

All UIS2 objectives have ISO standard RMS threading, facilitating easy mounting during assembly.

*1 For information on all UIS2 objectives, please visit our website at http://www.olympus-ims.com/en/component/objectives/.

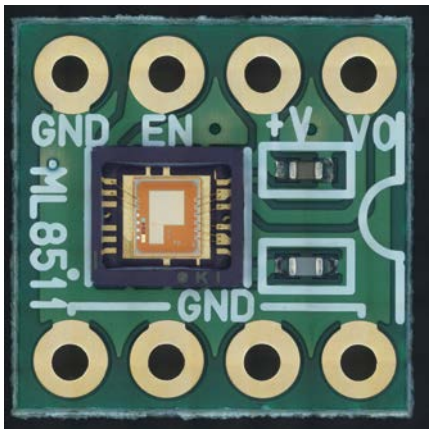
Increase added value by advanced technology



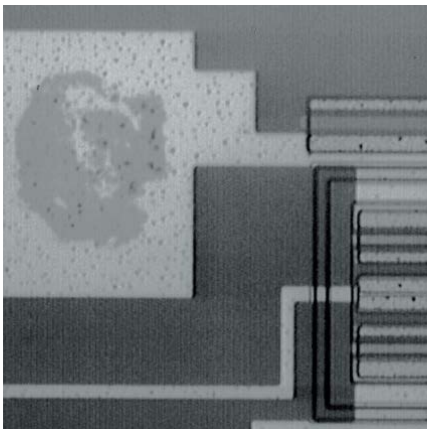
The integrated circuit (IC) chip is visible, but other areas are very dark.

In addition to objectives, it's important to choose the right accessories to optimize the optical performance of your product.

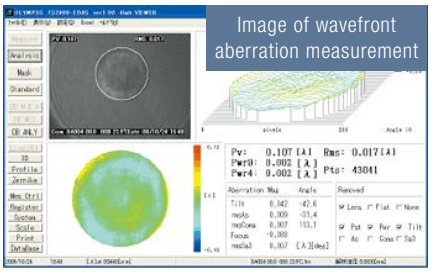
Olympus provides key accessories that add value to your equipment.



Our MIX illumination expands the capabilities of darkfield imaging and makes it possible to observe both the circuit board and IC chip clearly.



Infrared imaging is a widely used nondestructive testing technique used on silicon-based electronic devices as well as laser processing machines.



Olympus introduced "Wavefront aberration control*" into UIS2 objectives to achieve constant quality. With this method, the difference between ideal and actual image formation is minimized.

The following products feature wavefront aberration control:

- TIRF objective lenses
- PLAPON60XOSC2
- MPLFLN (BD/BDP) and LMPLFLN (BD) 50/100/150X series objectives
- MPLAPON 50/100X objectives

Choose the right illumination unit

The color temperature of halogen light sources remains constant when adjusting the voltage.

Compact, light, and uniform illumination are the key factors OEM manufacturers consider when choosing the right light source.

Olympus offers more than 40 types of illumination units, including advanced LED illuminators.

The color temperature of LED light sources remains constant when adjusting the voltage

When using LED illumination, additional color adjustment accessories, like color correction filters and neutral density filters, are not required because the color temperature does not change when you change the voltage. This feature helps make these illuminators easier to use.

The long life of LEDs helps reduce the need for maintenance. In addition, the BX3M LEDR illuminator is compact, generates low heat, and is flexible.

Other conventional illuminations, like halogen, mercury, and infrared types, are also available. A fiber guided light source is ideal for mitigating the effects of heat generated by the illuminator.

Increased accuracy and throughput

Your hand may not reach the microscope handles and knobs in an integrated system.

In order to acquire most appropriate image for inspection and analysis, users typically have to make a lot of adjustments, including focusing position, sample observation position, contrast methods, and magnification. When integrating microscope components into your equipment, remote control is often necessary.

Operators need a short tact time for inspection, therefore manually rotating objective lenses and focusing can add unwanted time to inspections.

Our expertise in microscope components helps increase the accuracy and throughput of the equipment.

A motorized revolving nosepiece

Multi-spot laser auto focus

Olympus offers a variety of components including microscope frames with a motorized Z axis, revolving nosepieces, motorized illuminators, motorized analyzers, control boxes, and hand switches to enable remote control. Our high-speed C type motorized nosepiece features increased accuracy and durability.

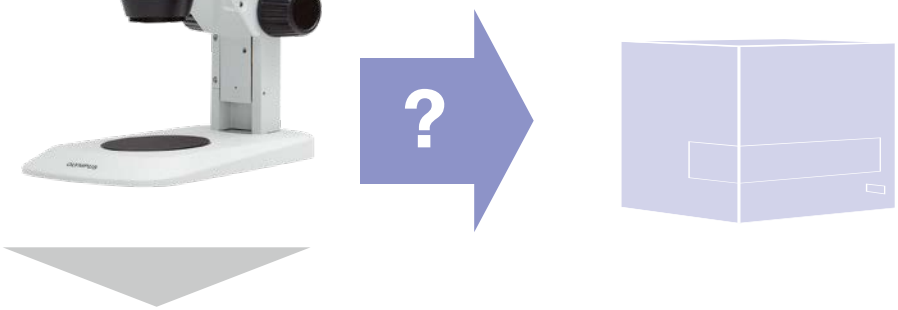
If motorized control is not required, cost-efficient coded components are available.

Olympus' unique multi-spot laser auto focus system detects minute differences in same surfaces with high accuracy. This system is ideal for mirror/wafer and glass materials using BF/DF/DIC observation methods at 5X to 150X magnification.

Olympus can provide technical documentation to control the laser autofocus system.

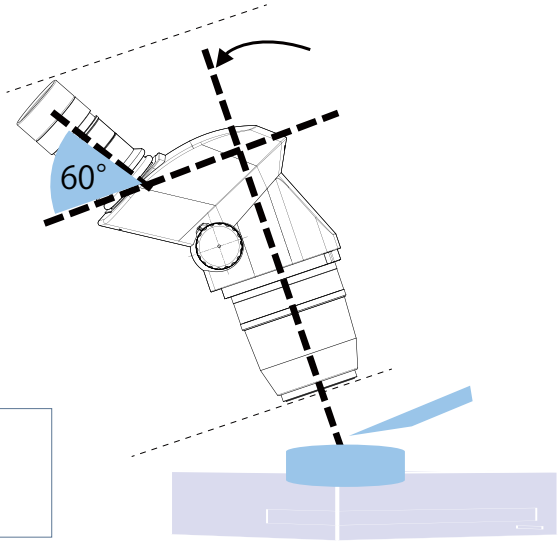
Differentiate equipment with dedicated integration units

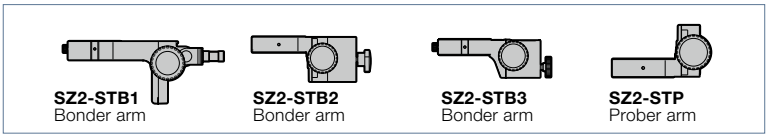
Conventional stereo microscopes are designed to be placed on a table and used by operators in a seated position. Sometimes, when stereo microscopes are integrated into larger systems, they must be modified, such as tilting the microscope head or fixing it to something other than a regular stand. This necessitates the creation of a non-standard layout.



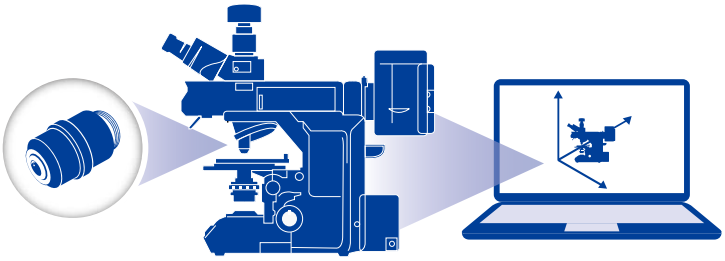
Olympus offers stereo microscope for dedicated integration purpose.

Models with a 60-degree inclination tube (SZ61-60/SZ51-60) are available for special applications where the zoom body has to be tilted for use with other equipment or mounted on a universal stand.





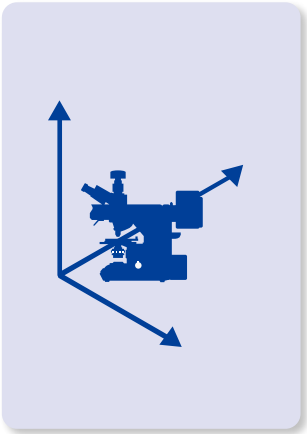
Get the necessary technical advice and information



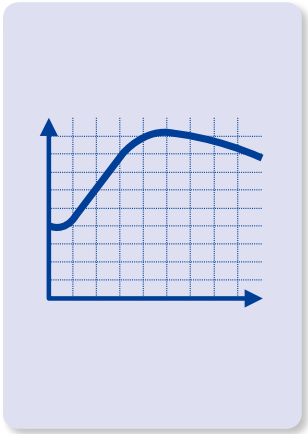
In each development phase, detailed technical information about the optical systems being integrated is often required. This information is also important for helping enable the quality of the final product.

Olympus works closely with your team to supply technical advice and information.*

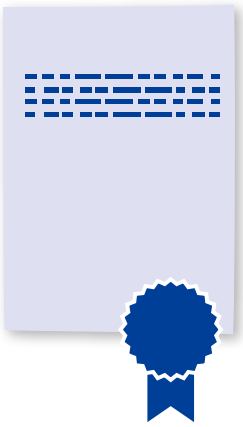
* There are cases where a non-disclosure agreement is required and some information cannot be disclosed.



Dimensional data are required for mechanical integration studies (e.g. CAD data)



Wavelength transmittance data are required for optical design studies



Several certificates (e.g. non-use of hazardous materials) are required for industrial standard

Command specifications are required for software development

Maintain stable equipment production

During mass production, all of the equipment's components must be available and meet quality standards. Poor quality in one component can impact the overall quality of the product. If one component is not available, the entire production line may have to be shut down.

Olympus gets you the components you need when you need them.

Olympus' production facility in Nagano is equipped with an ISO9001 quality management system.

As a quality management activity, strict tests are done during every phase of production to help enable optical performance, safety and durability.

Highly skillful technicians are the key assets of Olympus, who constantly pursue high and stable quality.

Olympus offers an extensive product line for parts and sample evaluation (apart from OEM integration). Learn more about the LEXT 3D Measuring Laser Microscope and DSX series Digital Microscope on our website, www.olympus-ims.com

LEXT
3D Measuring Laser Microscope

OLS4100

DSX
Digital Microscope

DSX510

DSX510i

DSX110

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- **EVIDENT CORPORATION is ISO9001 certified.**

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