

PRECISELY

CLEARER

SEAMLESS

Ultra-Depth-Of-Field Metallographic Microscope



With a perfect optical system and a new generation of optical technology,
it provides excellent optics and equally excellent ergonomics.

PRODUCTS

Introduction To Nondestructive Infrared Transmission Microscopy

The company's self-developed non-destructive infrared transmission microscopy technology is widely delivered to companies in the semiconductor field, flat panel display companies, scientific research units, universities and third-party laboratories, and military enterprises, which solves the dilemma of the technology being monopolized by foreign countries for many years, and creates higher benefits for both domestic and foreign customers.

The technical solution benefits from ultra-precision optical design, integrated optical system with nanometer-level processing, creatively compatible with conventional metallurgical microscope (2 inch-12 inch), conventional stereomicroscope, conventional tool microscope, conventional image measuring instrument, super depth-of-field microscope, and large-scale gantry industrial microscope (up to 120 inch).

Technical solutions can be structured light, near-infrared band, mid- and far-infrared band, terahertz band. Penetrate the non-metallic compounds encapsulated in the surface layer of chips and display panels for non-destructive inspection of customer products. Its technical indexes for nondestructive inspection inside micron/nano-scale objects have reached the international level, and it has comprehensively surpassed foreign competitors in applications such as VECSEL devices, thin film-type viscous crystal material penetration, full-complex achromatic infrared inspection, and visible light/infrared alignment inspection.

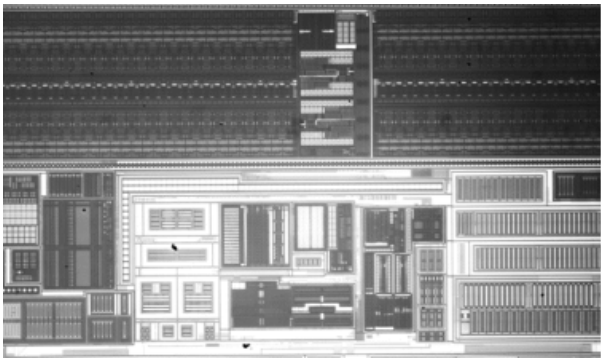
All series of industrial microscopes, 2 inch/4 inch/6 inch/8 inch/12 inch, can penetrate the surface of the sample, advanced non-destructive observation and inspection, inspection effect, speed is better than the international level, and greatly improve the customer's efficiency.



Conventional Visible Light Microscope

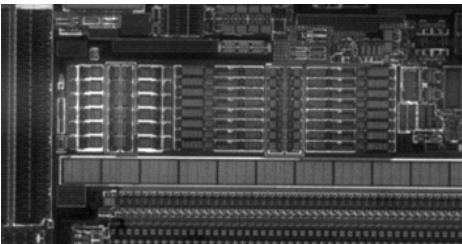


Infrared Non-destructive Penetration

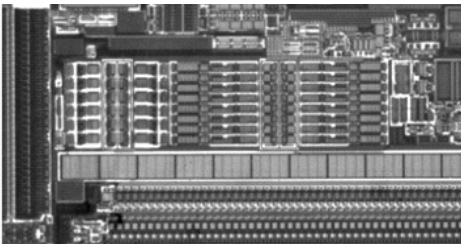


High-speed Infrared Perspective Detection 20fps

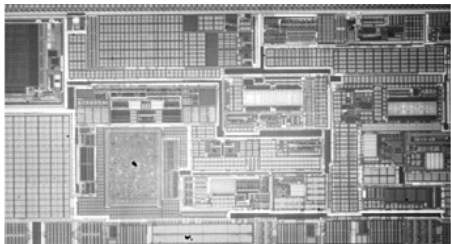
The company's standard ultra-high transmittance infrared camera is extremely cost-effective. In the near-infrared wavelength region, the response and expression of very weak signals are better than competitors. Thanks to many years in the front line to follow closely into the customer application scenarios, the company has mastered the core of the mid- and far-infrared image processing technology, infrared dynamic image algorithms compared to the first generation of products, so that the picture quality has improved by 180%, and combined with a special observation method, to achieve a thin film-type viscous crystal material penetration that can not be achieved by competing products.



General Infrared Camera

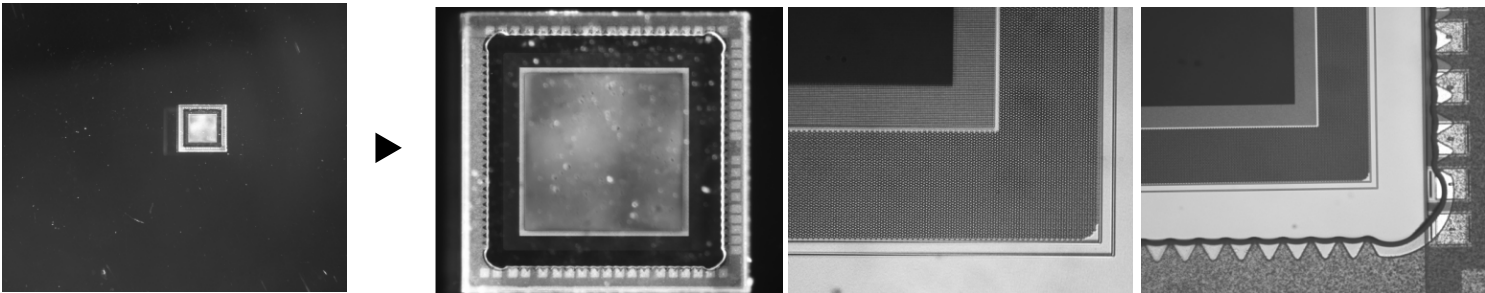


Japan Infrared Camera



Ultra High Transmittance Infrared Camera

It provides a perfect solution for customers to screen cut chips, and 1 field of view can penetrate to detect hundreds of IC chips.

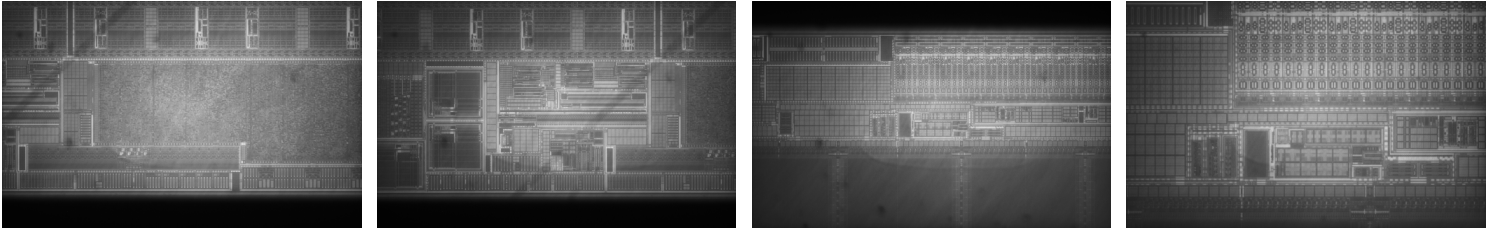


6X-45X Continuous Variable Infrared Fluorescopy Detection

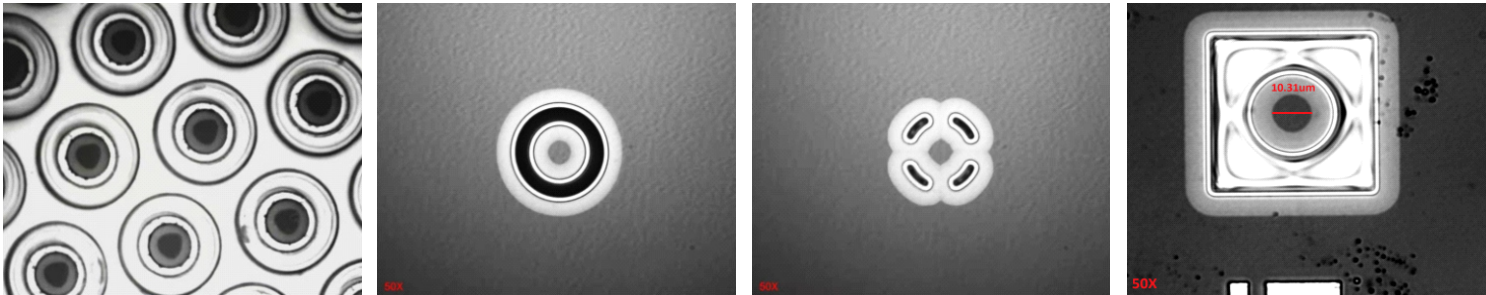
PRODUCTS

Nondestructive Infrared Fluoroscopy Microscopy Cases

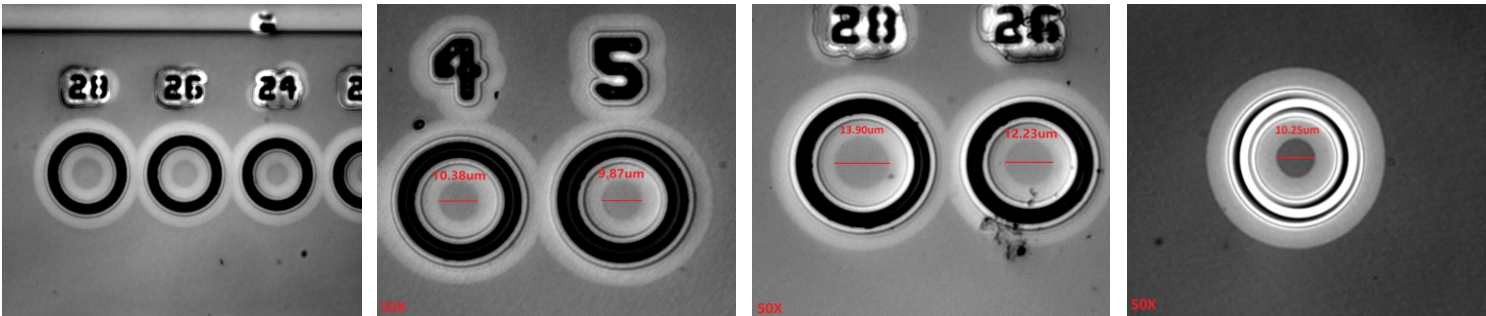
First-generation semiconductor (silicon-based) cases



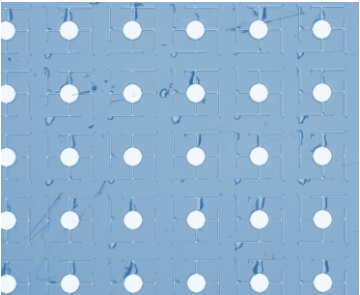
Semiconductor integrated circuit design and manufacturing company, VCSEL non-destructive penetration case:



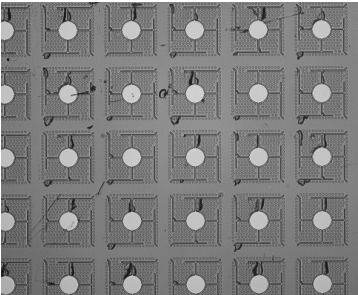
The case of second-generation semiconductors (compound semiconductors):



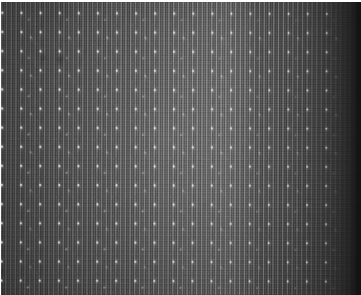
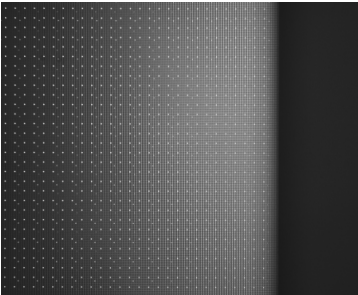
Second-generation semiconductor (silicon-based) conventional microscopy



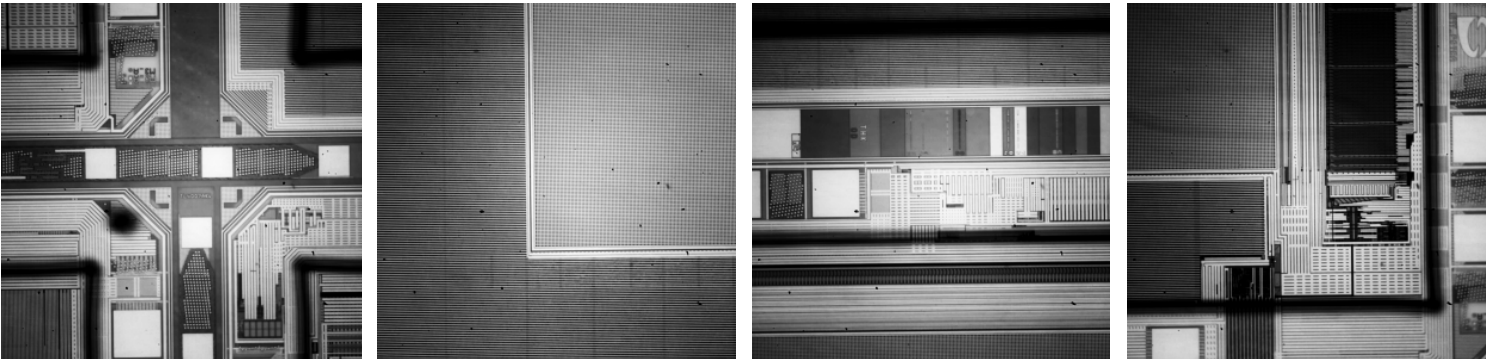
Short-wave infrared observation



Non-destructive penetration cases



Domestic aerospace military enterprises, infrared binocular alignment detection case:



PRODUCTS

Ultra-Depth-Of-Field Metallographic Microscope

With Perfect Optical System And New Generation Of Optical Technology

Superior Optical Performance

The versatile objective lens guarantees the finest clarity in any viewing mode, and the superior optics are now recognized by several of the world's leading optical researchers.

Intelligent Design (religion)

Ergonomically designed compact mirror dimensions, high-quality materials and versatile digital technology confirm minimal operator fatigue for prolonged operation.

Innovative module design

Compact size replaces the minimum installation space, exchangeable modules for various application requirements, allowing the selection of the right optical accessories.

Examples include reflected light illuminators, spotting mirrors, horizontally moving carriers, motorized Z-axes, motorized converters, etc.

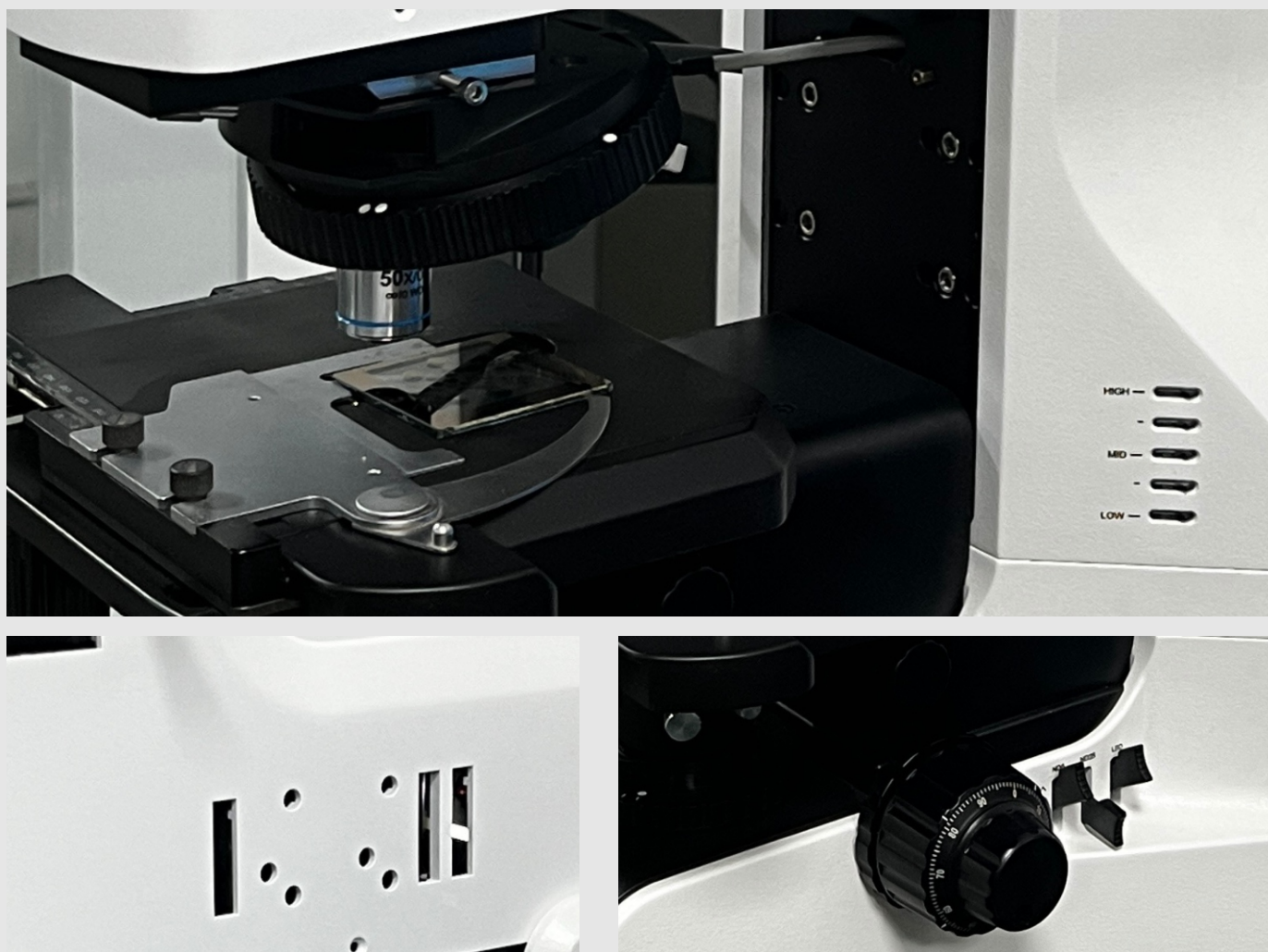


PRODUCTS

Ultra-Depth-Of-Field Metallographic Microscope

The Most Superior Optical System, Demonstrating Excellent Optical Performance In A Large Number Of Inspections

Aspherical prism design of the light box and high quality objective lenses ensure high clarity and high color reproduction of the field of view. Multiple viewing modes make it easier for the operator to obtain the desired image and inspection of the product.



Customized optics and light source systems

Reflector

The Reflected Light Illuminator provides a variety of observation methods. Such as: bright field, dark field and differential interference, to meet the needs of a variety of sample inspection.

Combined tie rods for BF/DF and ND

The BF/DF lever on the front panel makes it easy to change the viewing mode, and the linked ND sheet effectively protects the operator's eyes from glare damage when converting dark-field DF to bright-field BF.

Deskewers and deflectors

Rotating the deflector and detector combination allows for quick and easy changeover from DIC/POL viewing to other viewing modes. In fact, the plug-in design of the deflector and detector makes them easy to remove and insert from the microscope.

Optimum effect DIC provides high quality images

Using an inserted single DIC prism, it is easy to switch from other viewing modalities to differential interference viewing at either magnification because the differential interference position does not change.

Transmitted light systems and spot mirrors

Transmitted light path built-in ND6, ND25 and LB sheets, various spotting lenses available.

PRODUCTS

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Innovative Design Delivers Clear And Accurate Results

Simple acquisition of 3D images through the Z-axis focusing module;
Focus-accurate 3D measurement in combination with software provides capture to clear 2D images;
The controller helps to adjust the focus quickly and accurately.



Achieve Amazing Results With A High-precision, High-accuracy, User-friendly 3d Analysis System

Z-axis module

The Z-axis focusing module is composed of terrain analysis function and 3D features, which generates all the 2D images converted to 3D profiles through self-developed software.

Z-axis Module Parameters

Stroke Distance	30mm
Accuracy	0.01μm
Repeatability	0.5μm
Maximum Speed	1.4mm/s
Weight	5kg
Sizes	W:240mm
	D:157mm
	H:202.5 mm
load Capacity	15kg

Convenient Control Panel

In order to help check the height at a glance, the Z-axis can be controlled by checking the position accurately with the 8 speed settings on the display of the Z-axis control panel.

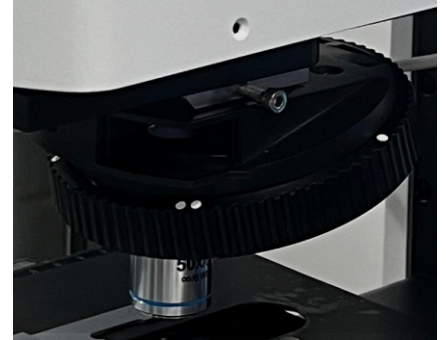
In addition, the emergency stop button helps to protect against accidents.

PRODUCTS

Ultra-Depth-Of-Field Metallographic Microscope

Superior Optical Performance Delivers High-resolution Images

Excellent color reproduction with high accuracy, reduced light loss and zero aberration. You are cordially invited to experience the excellent optical performance, which will be superior to any leading manufacturer's optical imaging quality improved optical image, guaranteed image excellence in any desired viewing mode.



Our Optics Meet All Your Needs, From Simple To Complex Analytical Measurements.

Excellent Color Reproduction

Advanced optical design and lens coating technology have created superior semi-complex achromatic objectives; These objectives provide better resolution and superior color reproduction.

Complete Removal Of Aberration And Chromatic Aberration

Flat-field semicomposite achromatic objectives provide the world's best image quality with spherical aberration correction and an internal prism set that minimizes chromatic aberration.

High Precision Coaxiality Objective Lens

When using different magnification objective lenses, the phenomenon of different axes occurs. By improving the combination of lenses inside the objective lenses and the high-precision objective converter, the different axes are reduced to a minimum; the center of the image remains almost unchanged when observing with different magnification objective lenses; and at the same time, it ensures that there is no shift in the center of the image when taking a picture with a digital camera.

Comfortable Eyepieces

To minimize eye fatigue, the eyepieces have an extra wide 25 mm field of view and a 20 degree viewing tube angle to provide a comfortable viewing angle; In addition, the prism further compensates for chromatic aberration.

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Intelligent, Easy-to-use Features Increase Efficiency And Operating Comfort

Adaptable new functions ensure that any potential future requirements are easily met.

Optimized systems and a wide range of digital functions enable daily tasks to be performed efficiently and accurately.



High Speed, High Efficiency And Intelligent Features Provided By Our Latest Digital Technology

Lighting Selector Knob For Convenient Multifunctionalization

The development of a multifunctional selector knob that combines all the functions required for reflective and transmissive lighting and brightness control has improved efficiency and convenience.

Illumination Selection Indicator

Reflective lighting, Z-Axis brightness, Eco on/off and Z-axis positioning can be easily seen at a glance. As a result, work efficiency will be further improved by reducing incorrect selections that occur during normal operation.

Environmentally Friendly Eco Function

An automatic power saving mode is employed whenever the operator is temporarily away. Enabling this power saving mode protects your samples from the heat of the illuminator.

Constant, Consistent II Brightness

Efficiency is further enhanced by providing optimized constant brightness in image illumination. This consistent level of brightness is maintained even if the viewing magnification changes during operation.

Convenient, Automated Magnification Display

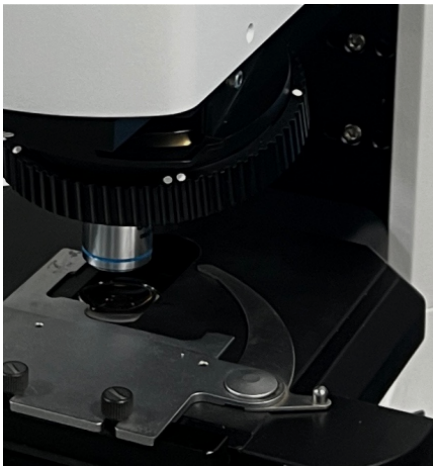
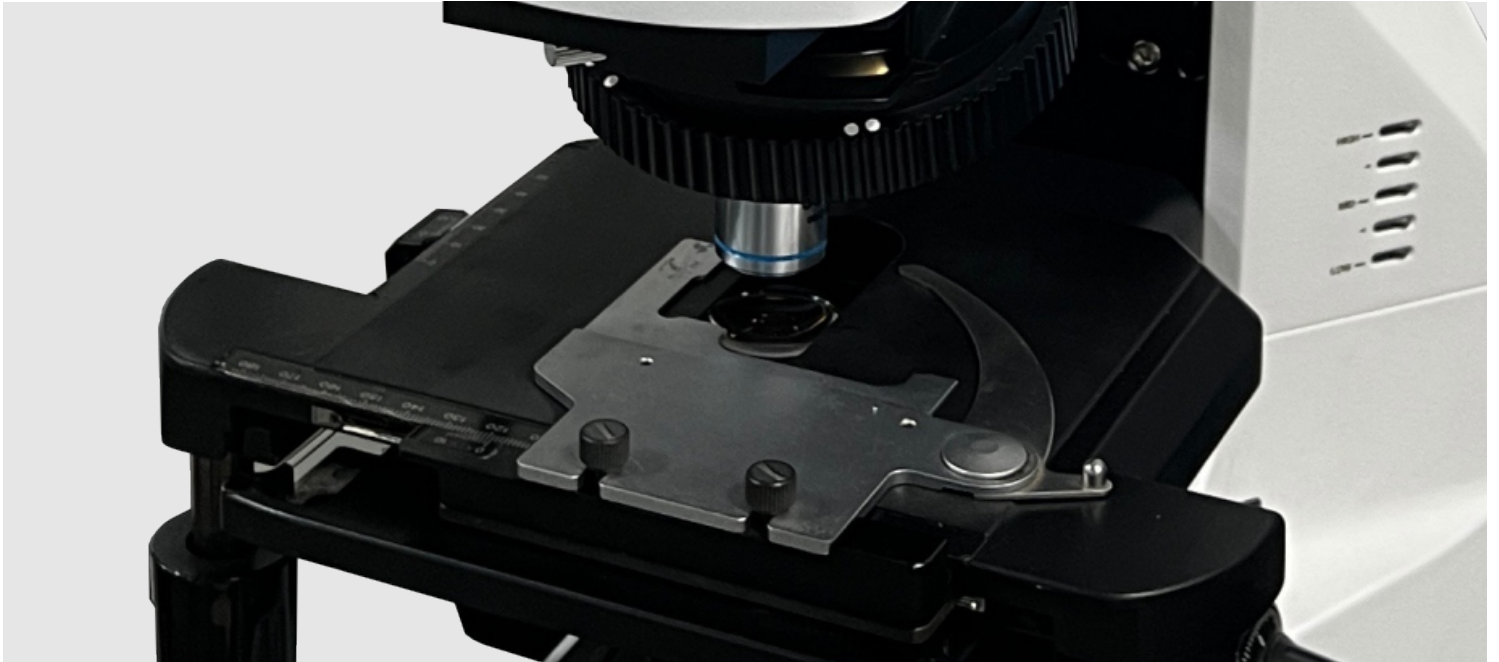
Current working magnification is automatically displayed and automatically calibrated retention is measured by our advanced self-developed analysis software.

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Fully Automated, Faster, Less Effort

Motorized, precision-controlled objective rotators, X/Y and Z-axis operation reduce operator workload, making work faster and less demanding;Operational efficiency can be improved by expanding the range of applications covered through the use of accessories and in-house developed analysis software.



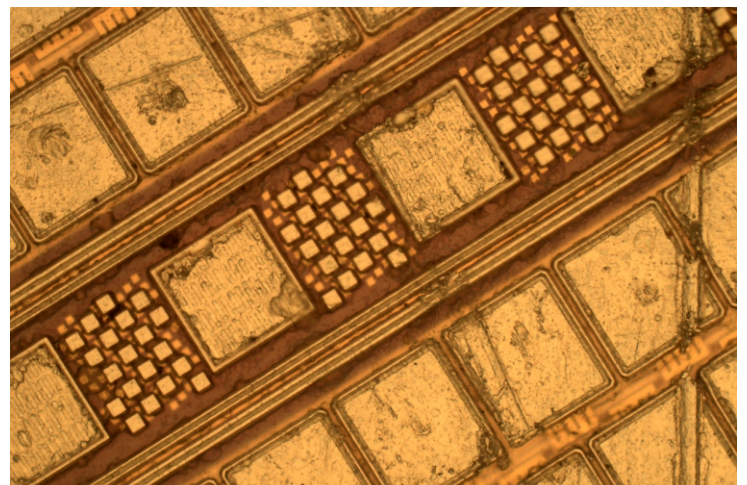
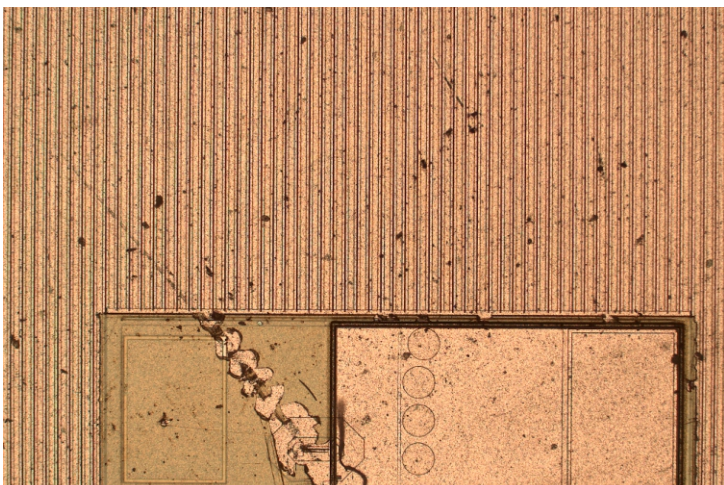
Enjoy A More Satisfying Inspection Microscopy Experience With Convenient Automatic Adjustments And A Wide Range Of Observation Methods

Motorized Rotary Converter

Motorized converters increase the speed and ease of use of your workflow. Depending on your needs and preferences, choose from software, frame buttons or controller adjustment methods to further increase productivity and efficiency.

Motorized High-precision Stage

Using a high-precision motorized linear stage, especially in high magnification tasks, significantly reduces the time for image capture and analysis, greatly improving your productivity. System-wide automatic adjustment makes it easy to enjoy a more satisfying inspection microscopy experience.



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Innovative Imaging Solutions With Superior Image Processing Capabilities

Efficiency is enhanced by a user-friendly interface, excellent image capabilities and fast image processing in conjunction with a wide range of measurement tools.



Powerful, Stable And Convenient Measurement And Analysis Software For All User Environments

Self-developed Analysis Software

The self-developed analysis software is optimized for intuitive and smooth use.

It is specialized software for use in inspection and research environments.

It has impressive 3D rendering capabilities and can be used in many different applications.

Quick And Easy Real-time Multi-focusing

The motorized Z-axis direction of the camera body provides 30mm of movement so that focus can be adjusted to the height of the sample with the easy-to-use Z-axis controller, so that all images are clearly visible and can be combined into a single, fully focused frame in real time.

Image Stitching Function

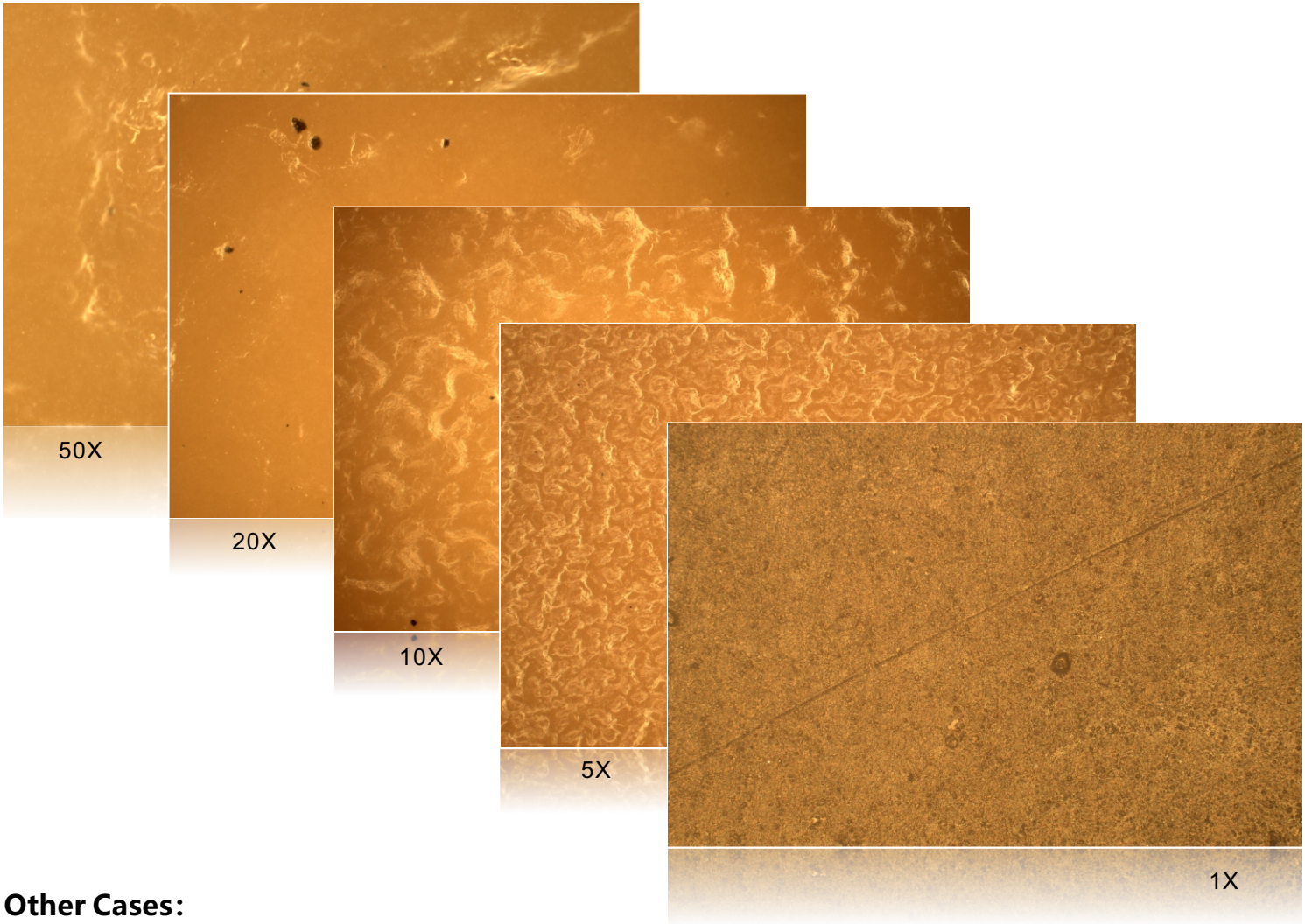
Image stitching is a very effective function that allows you to obtain a wide panoramic image consisting of multiple images captured by the moving X/Y platform.

You can stitch together neighboring images in real time to further expand your field of view.

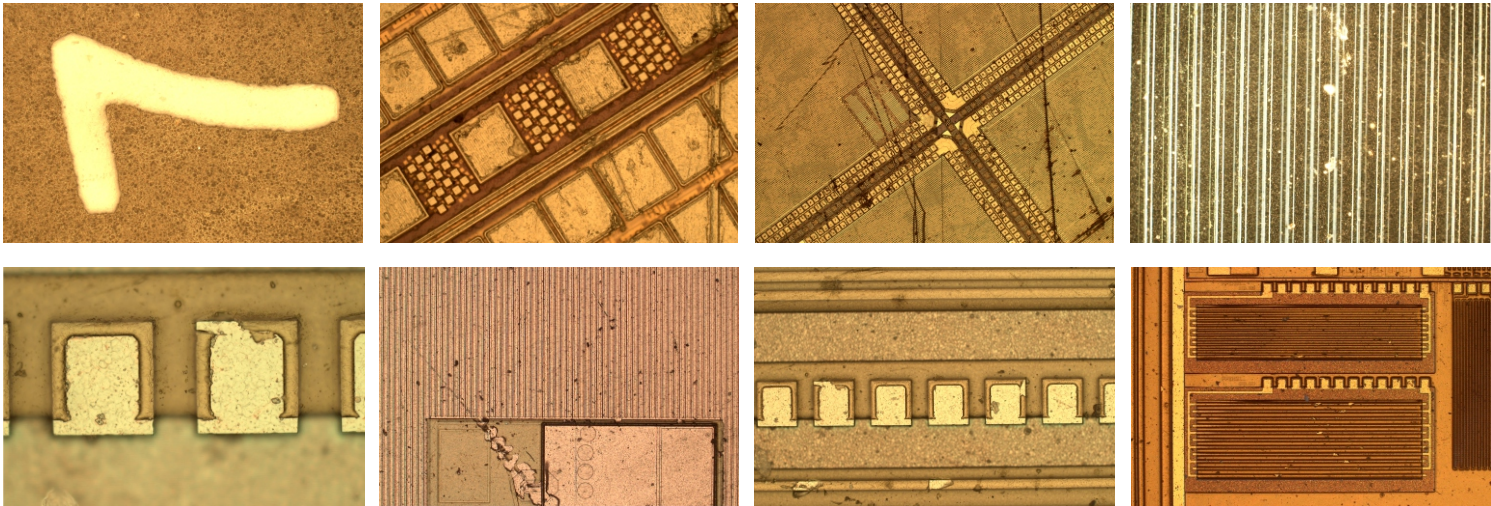
PRODUCTS

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Measured Results At Each Magnification:



Other Cases:



PRODUCTS

Ultra-Depth-Of-Field Metallographic Microscope

