

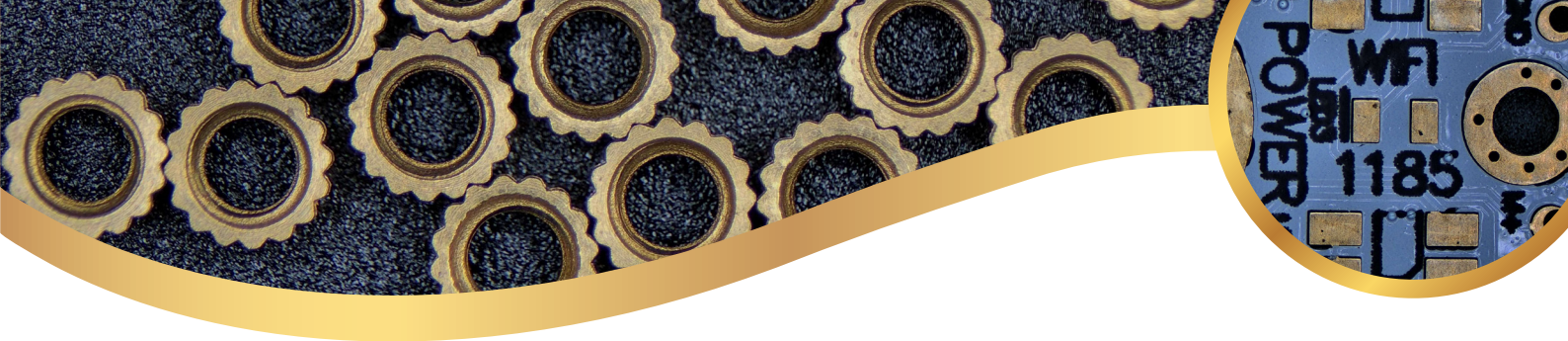
KoPa[®]

4K Zoom Video Microscope




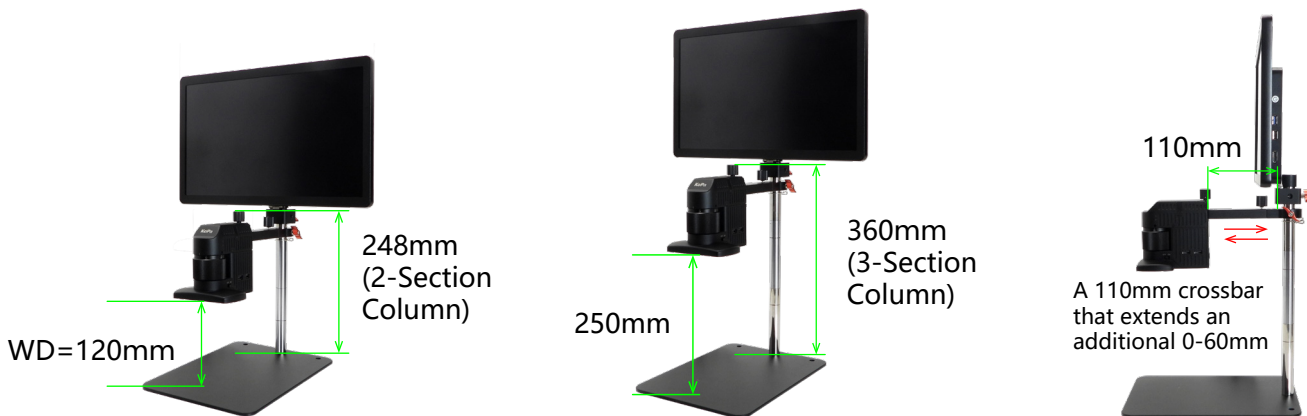
CE210T Series **Option B**

Model: CE210T Category: BJ-08



01 Compact footprint, generous workspace

 Flexibly adapts to your task. The standard 3-section column and an extendable crossbar create a versatile workspace.




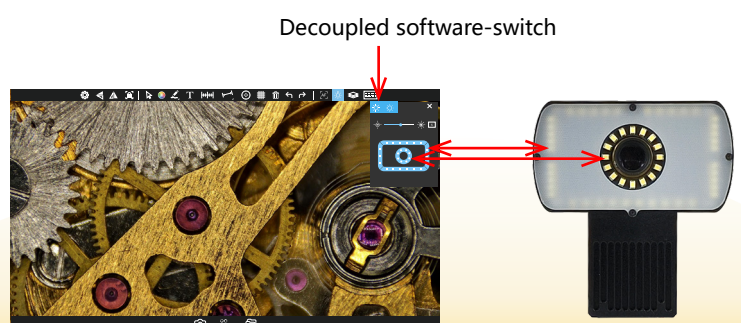
02 Delivers 4K 60Hz video through either HDMI 2.0

4K Powered by a Sony IMX678 (1/1.8") sensor, it ensures precise color reproduction with ultra-low lag; the camera auto-adapts to output natively to 4K or 1080p displays.



04 Advanced illumination system

 Control everything with software: adjust brightness, switch between four independent zones, and toggle diffused/near-coaxial light. Experience vibrant, accurate color (CRI \geq 95, R9 \geq 92, 6500K color temperature) that reduces eye strain, powered by long-life 20,000+ hour LEDs.



● Near-coaxial light


Power	< 3W
Input voltage	DC 5V
Dimming method	Dedicated LED driver IC with DC dimming
Center illuminance	2100–5900 Lx (at WD 120mm)
LED quantity	16 pcs narrow-angle high-brightness LEDs
Color temperature	6500K
Adjustment method	Software-switch

● Quad-zone diffused lighting

Power	< 5W
Input voltage	DC 5V
Dimming method	Dedicated LED driver IC with DC dimming
Center illuminance	2000~12000Lx (at WD120mm)
LED quantity	40 pcs wide-angle high-brightness LEDs
Color temperature	6500K
Adjustment method	software-switch


*Combined maximum illuminance (Near-coaxial + Quad-zone diffused): 16,600 Lx.

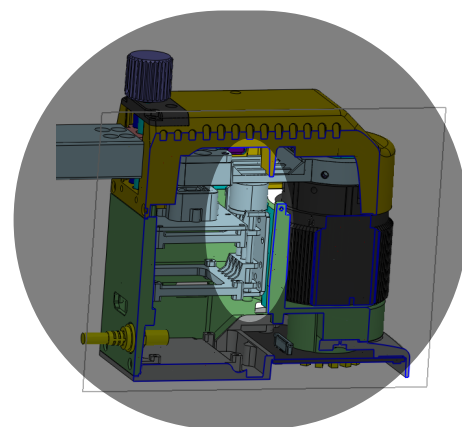
05 Precision rear Fine-focus

-  A gentle turn of the rear knob provides 15mm of smooth micro-adjustment, capturing fine sample details with accuracy and ease.



06 Steady, silent, strong

-  Featuring a precision stepper motor that runs quietly and smoothly without compromise, enabling you to tackle high-frequency tasks efficiently and consistently.



06 Specifications

● Optical Specifications

Optical Magnification	Working Distance (WD)	Camera Field of View (L × W)
0.3-1.8X	120mm	26.5×14.9mm (at 0.3X)
		4.2×2.4mm (at 1.8X)

*Total system magnification (on 27" 4K display): 23–140X (optical + display pixel array, i.e., displayed length / actual object length)

● Camera Specifications

Physical Resolution	8.3MP
Sensor Model	SONY IMX678 CMOS
Exposure Mode	Rolling shutter
Max. Resolution	3840×2160 (8,294,400 pixels)
ISO Sensitivity	Equivalent to 100–12800
Sensor Size	1/1.8"
Pixel Size	2μm×2μm
Spectral Response	380-650nm
Exposure Control	Real-time auto / manual
Exposure Time	10us~10s
White Balance	Real-time auto / manual (R/B adjust)
Preview Resolution	3840×2160 60fps
Power Input	DC 5V 3A
A/D Bit Depth	12bit
OSD and Software	OSD: <i>KoPa View</i> Software for Windows systems: <i>KoPa Capture Pro</i>

● Image Output Formats & Resolutions

	4K display (HDMI)	1080p display (HDMI)	Computer (USB)
Live view	3840x2160 P60	1920x1080 P60	At H264 format: 3840x2160@60, 2880x2160@60, 2592x1944@60, 1920x1080@60, 1600x1200@60, 1024x768@60 At MJPG format: 3840x2160@30, 2880x2160@45, 2592x1936@50, 1920x1088@60, 1600x1200@60, 1024x768@60
Photo capture	Resolution: 3840x2160 Format: JPG	Resolution: 1920x1080 Format: JPG	Resolution (H264 or MJPG) : 3840x2160, 2880x2160, 2592x1944, 1920x1080, 1600x1200, 1024x768 Format: PG/BMP/PNG/TIFF
Video recording	Resolution: 3840x2160 Frame rate: 30fps File format: MP4 Video format: H264	Resolution: 1920x1080 Frame rate: 30fps File format: MP4 Video format: H264	Video recording resolution (at H264 or MJPG) : 1920x1080(16:9) /1600x1200(4:3) /1024x768(4:3) Video frame rate: Approx.30fps Video format: MP4 or AVI

07

15.6-inch 4K Display

● Experience Ultra-Crisp Visuals

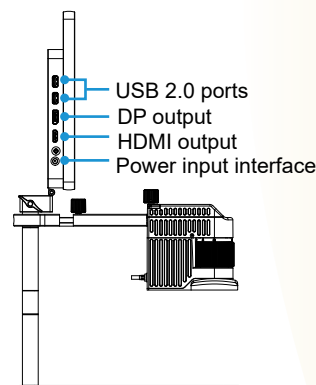
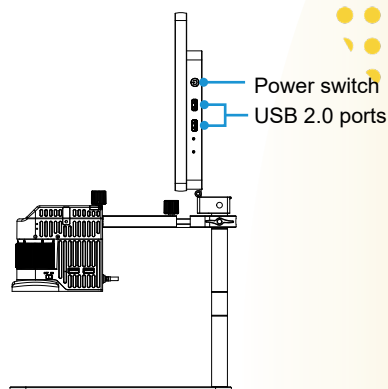
Featuring a sharp 3840 × 2160 4K resolution, this display delivers exceptional detail. With 100% Adobe RGB color coverage, it faithfully renders key shades such as cyan and blue—critical for industrial applications—with outstanding accuracy.

● Versatile Connectivity

Equipped with HDMI, DisplayPort, and USB 2.0 ports, it supports USB-powered microscope operation, streamlining workflow and enhancing convenience.

● Ergonomic Design for All-Day Comfort

The height-adjustable stand is built with ergonomics in mind, ensuring a comfortable viewing experience during extended use.



● 15.6-inch Display Specifications

Pixel Quantity	3840 (horizontal) × 2160 (vertical)
Pixel Arrangement	RGB vertical stripe
Color Gamut	100% Adobe RGB (135%sRGB)
Color Gamut Coverage	100% Adobe RGB
Number of Colors	16.7M (8Bit)
Surface Treatment	Anti-glare
Surface Hardness	3H
Viewing Angles	Horizontal 170°, Vertical 170°
Contrast Ratio	1500: 1
Brightness	1000 cd/m ² (5-point average)

08

Accessories

● Standard Accessories

①USB wired mouse



②HDMI cable (400mm)



③Power adapter (DC 12V 5A)



④Extension columns×2
(100 mm each)



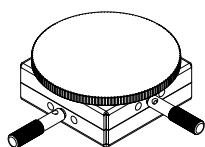
● Optional Accessories

① Precision polarization module

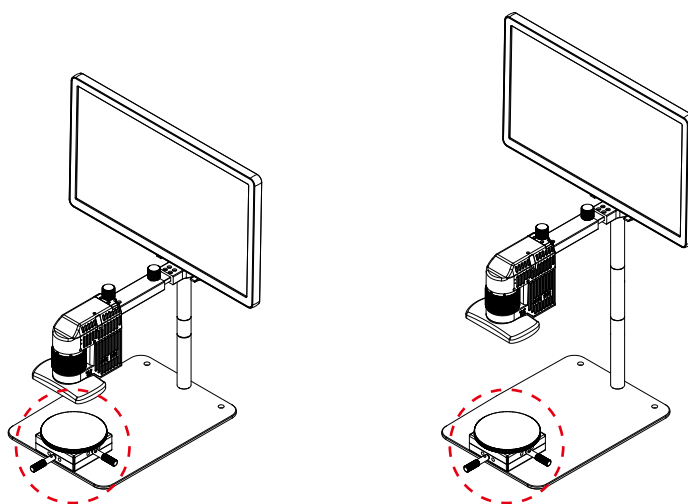
A compact unit featuring a 1000:1 extinction ratio with adjustable polarization angle.



② XY stage

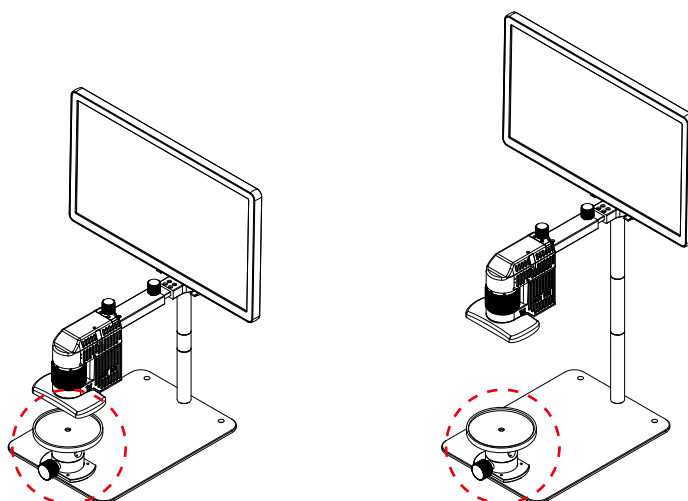


Effective Travel Range:
X=25mm
Y=25mm



Installation schematic

③ Gimbal mount





Installation schematic

*Note: XY stage and gimbal mount are under development.

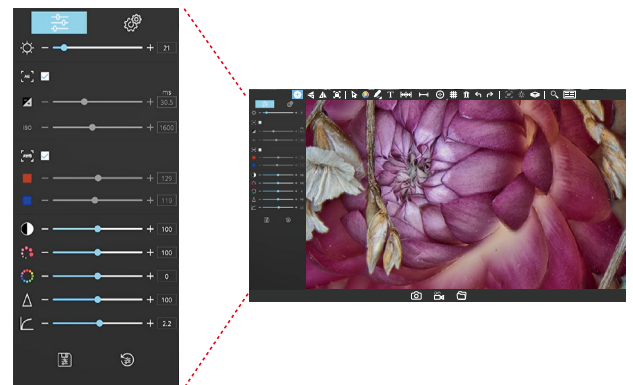
01 True-to-Life Color with Advanced Image Controls

This core imaging system works in unison with the sensor and processing chip, translating complex capabilities into intuitive, adjustable settings for precise image optimization.

- | | |
|---|--|
|  Target luminance |  Hue |
|  Exposure |  Saturation |
|  Gain |  Sharpness |
|  White Balance |  Gamma |
|  Contrast | |

Quick Controls:

- Restore all factory defaults
- Reset individual parameters
- Save custom image profiles

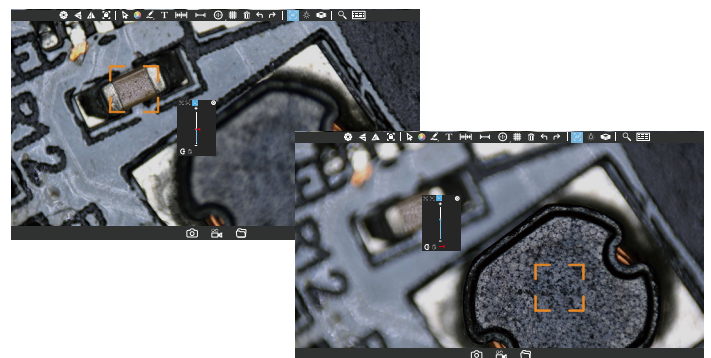


02 Smart focus, precision assured

Manual focus

Scroll the mouse wheel to focus effortlessly on complex surfaces—uneven, reflective, or multi-layered (e.g., solder joints, coatings, fine cracks).

Mouse sensitivity is 6 level adjustable to suit different needs.

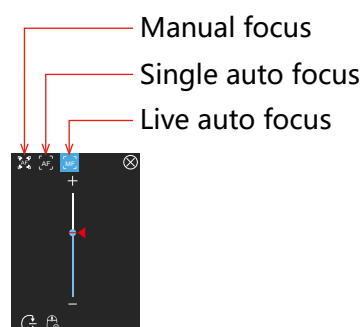


Single auto focus

Click the area you want to observe. The motor automatically searches until the sharpest focus is achieved at that location.

Live auto focus

Similar to Single Auto-Focus, click the target area and the motor begins searching. If the image changes, it instantly retriggers a focus cycle quickly locking onto clear imaging and significantly reducing inspection time.



03

Soft-Touch lighting control, detail perfected

Software-controlled illumination

The CE210T series features a quad-zone lighting system, with all light sources (near-coaxial and diffused) fully adjustable via the *KoPa View*.

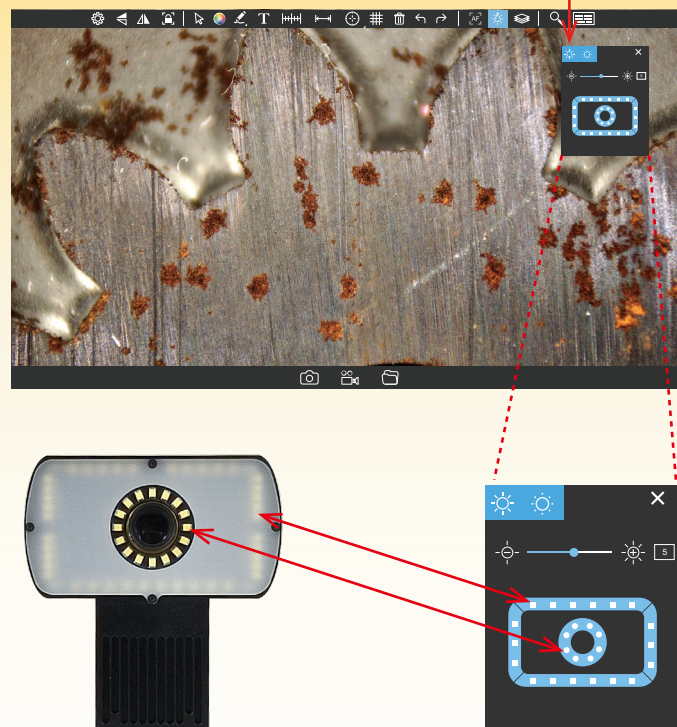
Flexible zoning

Each of the four zones can be independently adjusted. Mix and match brightness across different areas to reveal multilayer details of your sample.

30 step brightness adjustment

Whether dealing with highly reflective or low reflectance materials, optimize imaging with soft-switch dimming across 30 precise brightness levels.

Decoupled software-switch



04

Smart Interaction, Efficient & Reliable

Intelligent Presets

Preoptimized image parameters for common scenarios—minimal adjustment needed for ideal results.

Intuitive Icon based UI

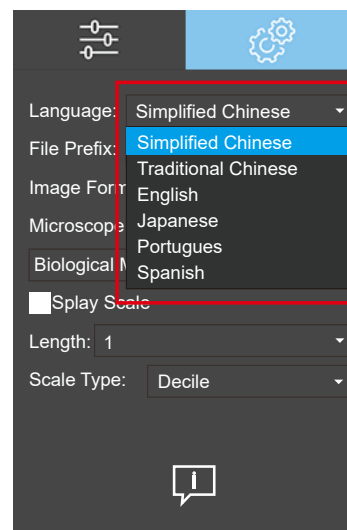
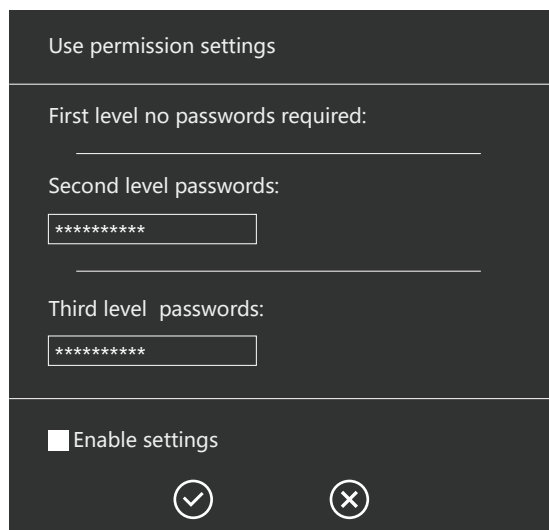
Functions are clear at a glance, making operation straightforward and easy to learn.

Three Level Access Control

Prevents unintended changes (default password for Level 2: Set123).

Multi Language Support

Switch instantly among Chinese, English, Japanese, Portuguese, Spanish, Russian, and more.



05

Focus Stacking (EDOF)

Manual Focus Stacking

Scroll the mouse wheel to define the scanning range, capturing and merging multiple focus planes across your area of interest.

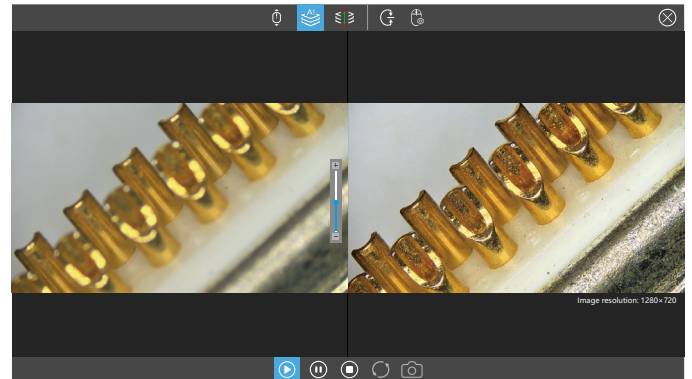
Auto Focus Stacking

Automatically identifies the sharpest areas in each frame and performs scanning and fusion.

Custom-Range Focus Stacking

Set the upper and lower limits of the motor travel, then scan and merge within this defined zone.

Return to preset par-focal position



06

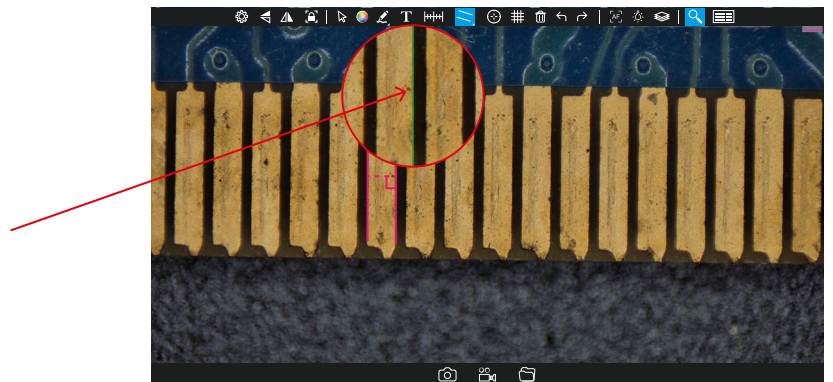
Auxiliary Tools

Auto Edge Detection

Quickly identifies and locates the edges of the object under inspection.

Magnifier

Locally zooms in to enhance visual detail. When using Auto Edge Detection, the magnifier helps users place measurement anchor points more accurately.

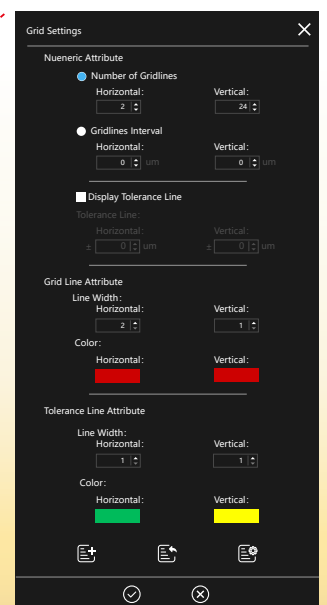
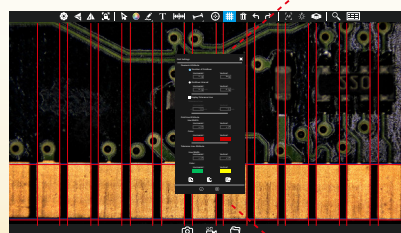


Grid Overlay & Measurement Tools

Grid Overlay & Measurement Tools

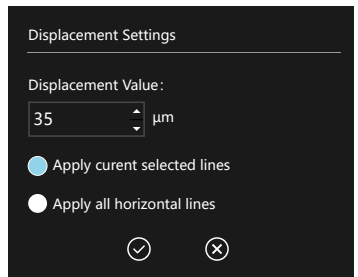
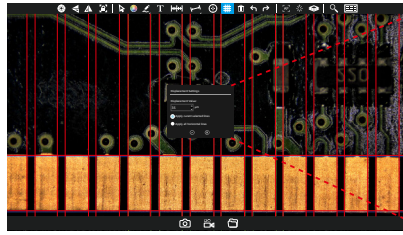
Customizable Grids

- Freely set the number of lines and spacing
- Customize line width and color
- Show or hide tolerance lines



Manage & Save Presets

- Add, import, and manage saved parameter sets
- Create custom styles: adjust spacing, color, width, and endpoint lengths



Smart Drawing & Controls

- Tap the toolbar to expand options; right-click to hide partial results
- Draw infinite vertical lines (double-click to end)

07 Precision Measurement & Annotation

Professional measurement tools paired with intelligent aids deliver reliable data for industrial inspection and scientific analysis.

Comprehensive Measurement Toolkit

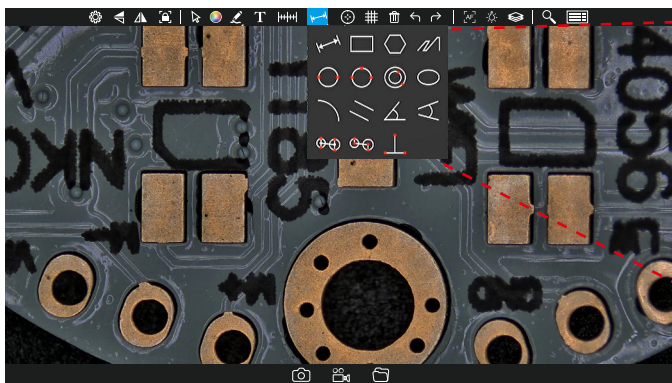
Includes: line, circle, rectangle, angle, parallel distance, arc, 3-point perpendicular, 4 point angle, ellipse, concentric circle, and more—covering everyday checks to complex analytical needs.

Calibration & Data Management



Calibrate once—ready anytime. The system saves calibration data automatically, even after power off. Restart without re-calibration, ensuring consistency and saving time. Quickly enable scale bars, crosshairs and other visual aids to support positioning and measurement.

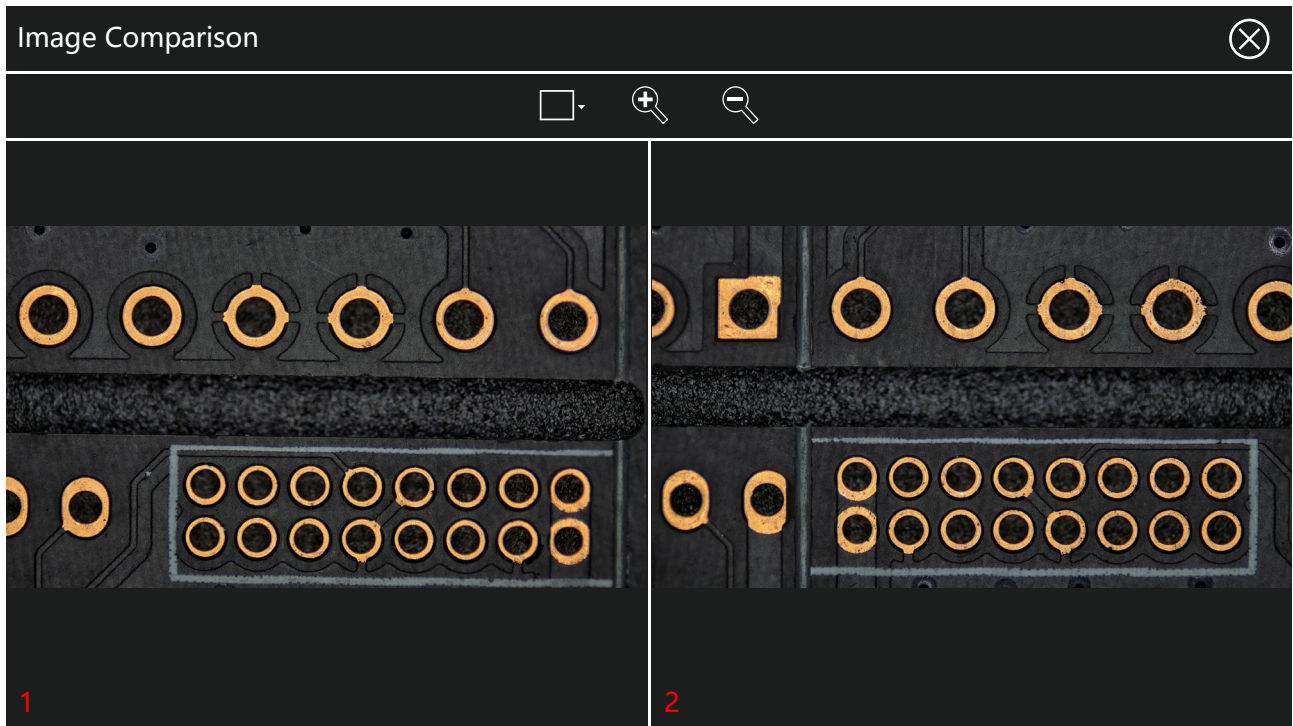
Efficient Annotation & Markup

Annotate measurements directly onto the live image for instant clarity. All notes and marks are editable and savable, streamlining report generation and data traceability.



08 Side-by-Side Image Compare – Spot Differences Instantly, Boost Inspection Speed

-   This feature displays the live inspection image alongside a captured reference image, enabling quick and precise identification of even the subtlest differences between test and standard samples.



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<https://www.ostec.com.cn/>



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ISO9001 Verification No:00223Q26818R3S

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