



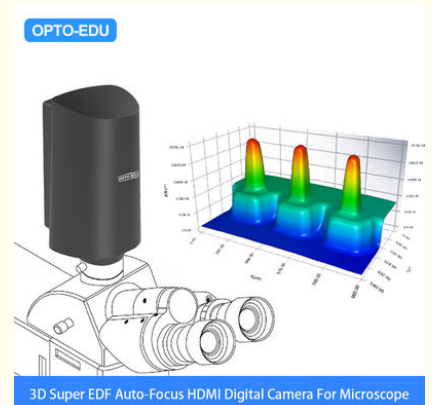
## HDMI Digital Camera Microscope Accessories Sony 1/2" Color CMOS

Our Product Introduction

for more products please visit us on [cnoec.com](http://cnoec.com)

### Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A59.3820
- Minimum Order Quantity: 1 pc
- Price: FOB \$1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: T/T, West Union, Paypal
- Supply Ability: 5000 pcs/ Month



### Product Specification

- Sensor: Sony 1/2"color CMOS
- Resolution: 1080P(1920×1080)
- Pixel Size: 3.75μm×3.75μm
- Shutter Mode: Rolling
- Scanning Method: Progressive Scanning
- Frame Rate: 60fps(Normal),30fps(WDR)
- Highlight: digital trinocular microscope, usb digital microscope



### More Images



## Product Description

OPTO-EDU A59.3820 3D Super EDF Auto-Focus Measuring HDMI Digital Camera Sony 1/2"color CMOS

### Easy to Use

Output to HDMI monitor, control by mouse, NO NEED computer, directly obtain & measure 3D images.

### Wide Usage

Standard C Mount, can be used with different microscopes such as metallurgical, stereo, mono tube, etc

### Auto-Focus Measurement

Under the 10X objective lens, the accuracy of 2D and 3D measurement can reach 2 micrometers.



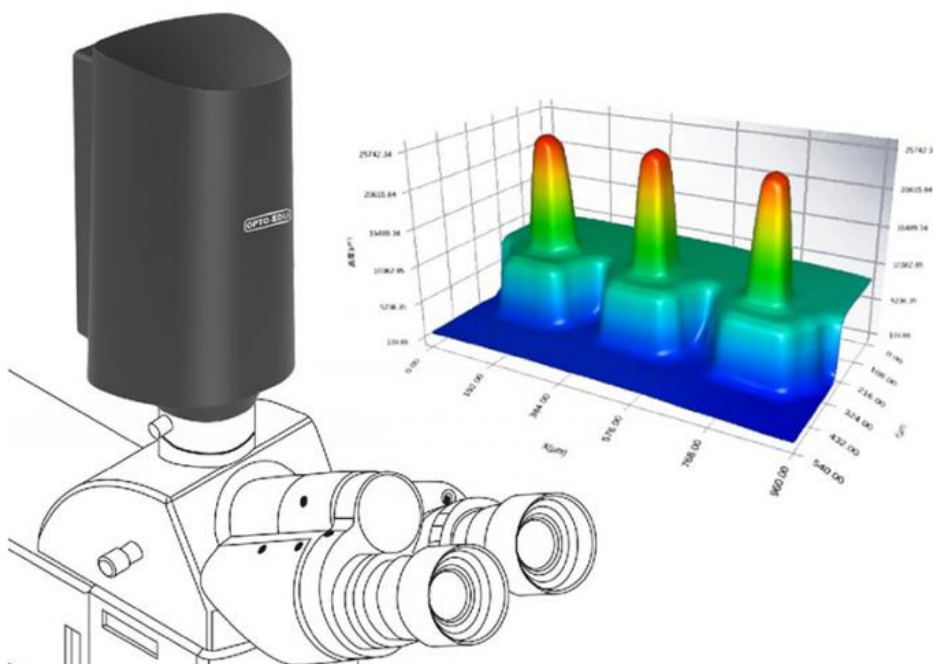
OPTO-EDU (BEIJING) CO., LTD.

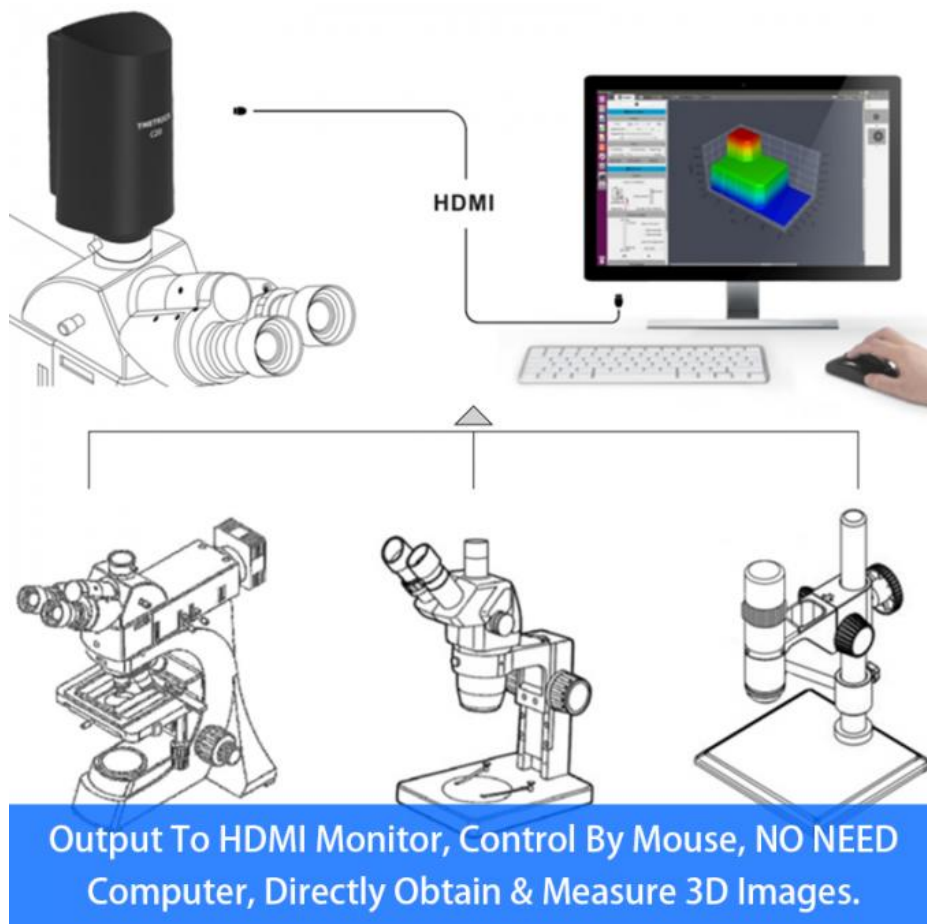
F-1501 Wanda Plaza, No.18 Shijingshan Road, Beijing 100043, China  
Tel:+8610 88696020 Fax:+8610 88696085

## A59.3820

### 3D Super EDF Auto-Focus HDMI Digital Camera For Microscope

**Smart camera directly acquires and measures microscopic 3D image!  
Upgrade the observation and analysis capabilities of your microscope!**





A58.3520 microscopic 3D imaging camera has the characteristics of high integration and flexible application, no other modification is required, it can be directly used with a microscope. The operation is simple, all functions can be completed by the mouse. Performance guarantee for integrated linkage: The built-in intelligent heterogeneous computer host can directly perform a large number of calculations instead of a computer, with fast operation speed and stable operation; Real-time ultra-depth of field and 3D modeling algorithm can help the microscopy system to realize the three-dimensional observation and measurement analysis of the whole body; automatic edge recognition algorithm can also further improve the efficiency of microscopic observation and batch work.

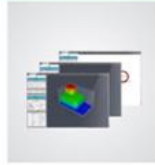


Intelligent Built-in Computer With Software & Friendly User Interface

## Combined 4 Professional Equipment All-inOne



High-speed Dynamic  
Color Camera



Microscopic Image  
Analysis Software



Precision Z-axis  
Motorized Stage



High-performance PC  
Work Station

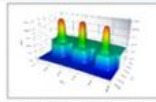
## Upgrade Your Microscope To 3D Ultra-depth Measure Tool



2D Image Observation



Ultra-depth of Field Imaging



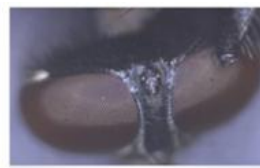
3D Imaging Measurement



2D Automatic Measurement

### Ultra-depth observation, observe all feature points on the same plane

Open the software "Shooting-Advanced Imaging -EDF & 3D" function module, click to confirm the upper and lower focal position to be observed in the image, click "EDF", A59.3820 can automatically Expand Depth of Field, obtain a full-frame in-focus screen, and observe all the feature points on the same picture



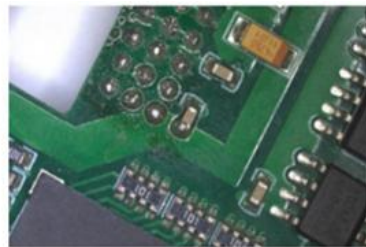
**Before EDF**  
Focus In Different Depth



**After EDF**  
Focus In All Depth

### Real-time Extend Depth of Field (EDF) To Avoid Blurry, False Image Phenomenon

Based on the three-dimensional system carried on different platforms When the depth of field is expanded, it is easy to produce a degree deviation The amount, rotation, and focus are uneven elephant. A59.3820 intelligent computing linkage performance can To help solve the above problems, with a microscope Lens, you can also get a clear and correct full frame Focus screen.



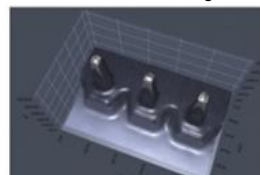
### Real-time Wide Dynamic Range (WDR) Effectively Eliminating Strong Reflection Light

The strong reflection light from the surface is easy to cause details loss of information and affects judgment. A59.3820 WDR mode calculates multiple different Luminance map data, able to create exposure Perfect images with clear light and dark details

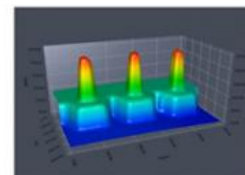


### Sample Cases Upgrade Observation And Analysis Capabilities of Your Microscope

Open the software "Shooting-Advanced Imaging-EDF & 3D" function module, click to confirm the upper and lower focal position to be observed in the image, click "3D", A59.3820 can automatically complete the creation of 3D models, supports two display modes, real or false color, and can be rotated 360 degrees for observation.



3D Real Color

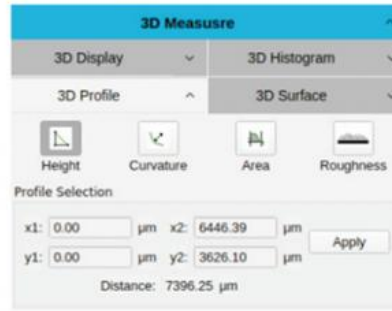


3D False Color



## Rich 3D Measurement Functions

**A59.3820** Provide a wealth of 3D analysis tools, which can analyze 3D models Measure at any position, and can record and save in real time data. Under a 10x objective lens, the Z-axis measurement accuracy can reach 2 micrometers, the repetition accuracy can reach 1 micron, with higher magnification. The objective lens can also obtain more precise size information, satisfying Extremely demanding microscopic 3D measurement.

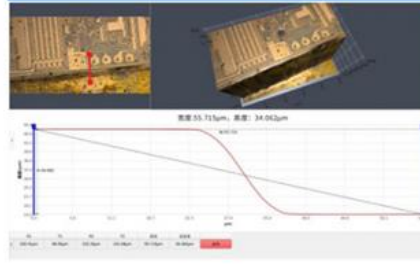


## Measure Height of Inner Hole of The Part



Stereo Microscope  
Watch Gear  
Height 5.661mm

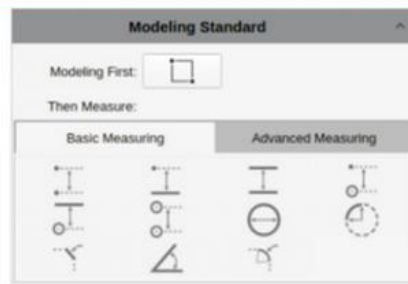
## Analyze Structure of Precision Components



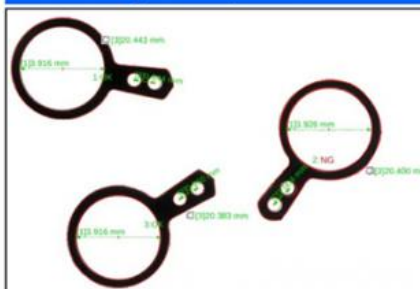
Metallurgical Microscope  
Chip Inner Structure  
Height 34.062um

## Automatic 2D Measurement Eliminate Human Errors And Proceed Batch Operations

**A59.3820** also has 2D intelligent image recognition and batch measurement functions. No need for precise positioning by hand, you can quickly complete standard product modeling work, effectively eliminate human operation errors, and help complete various types of Batch measurement job. Under 10x objective lens, the auto measurement accuracy can be up to 2 micrometers, repeat accuracy 2 micrometers, to ensure batch measurement results Accuracy.

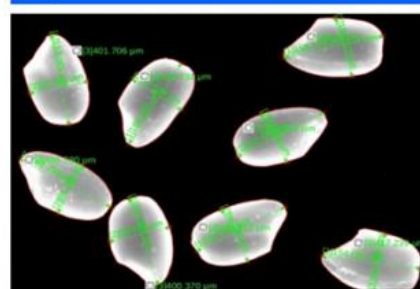


## Automatic Judge Qualified / Non-Qualified Parts



For standard parts, **A59.3820** can be customized according to the set standard deviation range. Dynamically display OK/NG results of samples to improve quality inspection and analysis efficiency.

## Output All Measurement Data At One Time



For non-standard parts, **A59.3820** can set similarity tolerance, output the measurement data of all samples at once to improve batch measurement efficiency.

## Test Report Creation Function

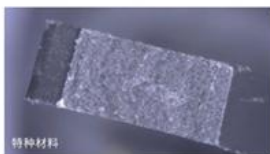


**A59.3820** Not only can save images and video data, but also judge Qualified / Non-Qualified parts automatically and create a graphical test report to work as the dimension in the flow, All 3D data can be exported. After the operation is over, the work is complete. simple and easy!

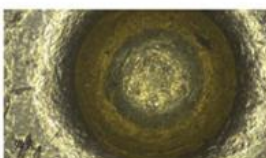
Model	A59.3820 3D Super EDF Auto-Focus HDMI Digital Camera	
Camera Features	Sensor	Sony 1/2"color CMOS
	Resolution	1080P(1920×1080)
	Pixel size	3.75μm×3.75μm
	Shutter mode	Rolling
	Scanning method	Progressive scanning
	Frame rate	60fps(Normal),30fps(WDR)
	Gain	Automatic / Manual
	Exposure time	Automatic: 0.1ms-16.6ms, manual: 0.0001s-1s
	White balance	Automatic/manual/area
	Image storage	TIFF/JPEG
	Video format	AVI/MP4(1080P)
Advanced Features (Embedded)	3D noise reduction	Support
	WDR	Support
	Real-time EDF	Support
	Edge enhancement	Support
	Gamma correction (contrast)	Support
	Color enhancement	Support
	Flat field correction	Support
	Effect mode	Normal/Negative/Relief/Grayscale
3D display and measurement	Online calibration	Support
	3D display	Pseudo-color/real scene display, grid lines, 360°rotation
	3D histogram	Support
	3D profile measurement	Height difference, curvature, area, roughness
	3D surface measurement	Step height, volume, surface roughness
	Z range (depth of field)	23000μm
	3D measurement accuracy (10X)	±2μm
	3D repeatability (10X)	±1μm
	3D measurement report	Support, editable template
2D measurement	2D calibration ruler	Support
	2D manual measurement	Point-point, point-line, line-line,Parallel, perpendicular,
	Counter	polygon, circle, arc, concentric circle, circle-circle, ang
	2D measurement accuracy (10X)	±2μm
	2D repeatability (10X)	±2μm
	2D measurement report	Support
Input	Mouse input	USB mouse
	Keyboard input	USB keyboard
Interface	Optics	Standard C-Mount
	Video	HDMI 2.0
	Internet connection	Fast Ethernet
	USB	USB2.0 x 3, USB3.0 x1
Others	Storage capacity	Built-in 32G Emmc
	Power supply	12V 8A
	Weight	2.5kg
	Appearance size (WxHxD)	87cm*181cm*103cm
	Working environment	5°C-40°C (temperature), 45%-85% (humidity)

### Sample Cases Upgrade Observation And Analysis Capabilities of Your Microscope

#### Material Fracture Analysis



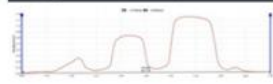
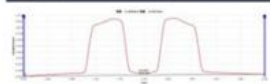
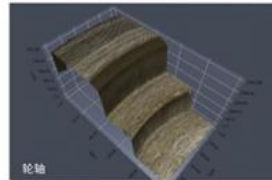
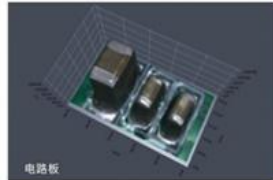
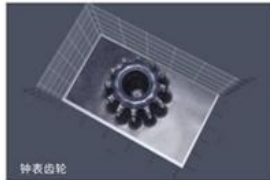
#### Surface Trace Detection



## Biological Observation



## Parts Measurement



Smart Camera Directly Acquires And Measures  
Microscopic 3D Image! Upgrade The Observation And  
Analysis Capabilities Of Your Microscope!



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