OPTO-EDU A63.7001 Tungsten Filament Scanning Electron Microscope SE BSE 150000x 10nm@15KV

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A63.7001
- 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

- Resolution: 10nm@15KV
- Magnification: 150000x
- Electron Gun: Tungsten
- Voltage: 5/10/15KV
- Detector: BSE+SE
- Navigation CCD: CCD

Our Product Introduction

for more products please visit us on cnoec.com

Product Description

Magnification 150000x Resolution 10nm@15KV With Detector SE+BSE+CCD, Optional EDS,

Standard 2 Axis XY Motorized Stage, Moving 40x30mm (40x40mm Optional)

Max Specimen Size 80x42x40mm, Working Distance 5-35mm

High Vaccum 1x10-1Pa In Chamber, With Mechanical Pump, Molecular Pump

One Key Auto Focus, Auto Brightness & Contrast Adjust, No Need Shock Absorbing Table

OPTO-EDU (BEIJING) CO., LTD.
F-1501 Wanda Plaza, No.18 Shijingshan Road, Beijing 100043, China
Tel:+8610 88696020 Fax:+8610 88696085

A63.7001

Tungsten Filament Scanning Electron Microscope, SE+BSE, 150000x, 10nm@15KV

A63.7001 Features

Scanning Electron Microscopy (SEM) is an observational means between Transmission Electron Microscopy (TEM) and optical microscopy.

It scans the sample with a narrowly focused high-energy electron beam, and excites various substances through the interaction between the beam and the matter. The information is collected, amplified, and re-imaged to achieve the purpose of characterizing the microscopic morphology of the material. Adhering to the design goals of convenient operation, fast imaging and stable performance, OPTO-EDU has independently developed a tungsten filament desktop scanner.

A63.7001 Scanning Electron Microscope has a fast scanning speed and a signal acquisition bandwidth of 10M, which can display samples smoothly and in real time in video mode. All operations can be completed with a mouse, and there is no need for complex steps such as centering the diaphragm. After focusing and eliminating astigmatism, you can directly take pictures. The host integrates high voltage and control system, small size, easy to move, no special environment for installation, just find a table, plug in power, you can start to work.

Main Specification:

1. Acceleration voltage: 5KV/10KV/15KV
2. Electron gun type: pre-aligned tungsten filament, life time 100 hours, easy to replace by user, highly integrated two-stage gun lens, no need to manually adjust the diaphragm of the objective lens.
3. Magnification ≥150000X
4. Resolution:≤10nm@15KV
5. Detector: secondary electron detector (SE), quadruple backscatter detector (BSE),
6. Stage: 2 Axis XY motorized stage, moving 40x30mm (40x40mm optional)
7. Maximum sample size: 80x42x40mm
8. Sample change and high vacuum pumping time≤ 90s.
9. High vacuum system: built-in turbo molecular pump, external mechanical pump, the vacuum in sample chamber ≥1x10-1Pa, fully automatic control;
10. Video mode ≥512x512 pixels, no need for small window scanning.
11. Quick scan mode: imaging time≤3s, 512x512 pixels.
12. Slow scan mode: imaging time≤40s, 2048x2048 pixels.
13. Image File: BMP, TIFF, JPEG, PNG.
14. One-key automatic adjustment of brightness and contrast, auto-focus.
15. Navigation function: optical camera navigation and cabin camera.
16. Image measurement function: distance, angle, etc.
17. Including computer & software, mouse control.
18. Optional:
--Tungsten filament (20pcs/box)
--EDS
19.Microscope size: 283*553*505mm, mechanical pump size 340*160*140mm

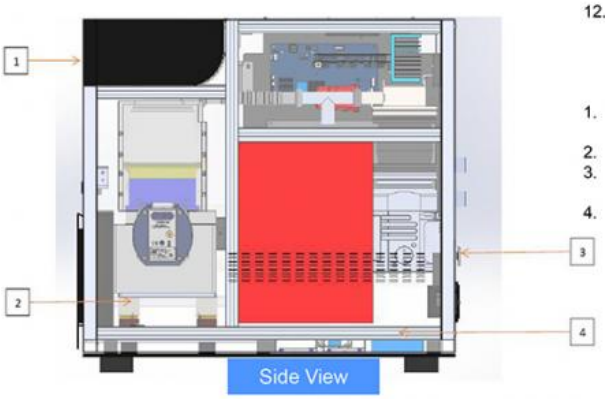
A63.7001 Details

OPTO-EDU

Front View

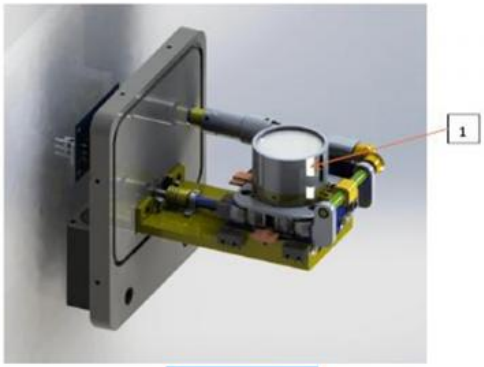
Rear View

1. Tungsten filament gun room, the inside is the gun head part.
2. Sample Room, used to put samples.
3. Molecular pump, used for vacuuming.
4. High voltage source.
5. Electron beam scanning indicator, lights up when scanning starts.
6. Power indicator, lights up when the device is powered on.
7. Sample Room Cover, can be pulled out for sample operation after the internal vacuum is vented to atmospheric pressure.
8. USB-1, used for communication with computer.
9. USB-2, used for communication with computer.
10. External mechanical pump vacuum hose interface.
11. 220V Mains power. Note that a ground wire is required.
12. External mechanical pump power supply



Side View

1. Tungsten filament gun room, the inside is the gun head part.
2. Sample Room, used to put samples.
3. Molecular Pump, Used For Vacuuming.
4. High Voltage Source



Sample Stage

Label 1 in the figure is the sample stage, that is, the position where the sample is placed.

1. Paste the sample on the sample holder with conductive adhesive.
2. Pay attention to the type and height of the sample. If the sample is powder, you need to blow off the excess powder with an air gun. The height of the sample should not exceed the lower edge of the sample compartment.
3. . Put the sample holder into the sample stage, and note that the radial screws of the sample holder face into the sample compartment.
4. Tighten the fixing screws on the sample stage.

A63.7001 Specification

OPTO-EDU

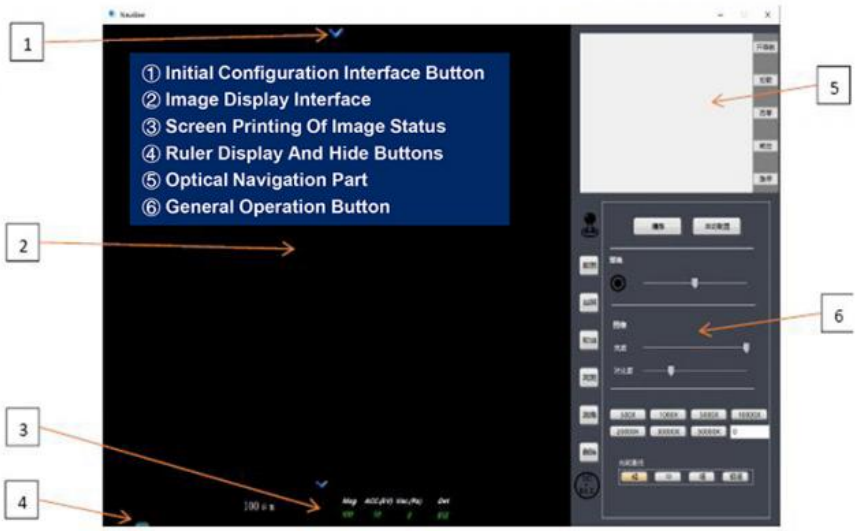
Model	A63.7001	A63.7002	A63.7003	A63.7004	A63.7005
Resolution	10nm@15KV	6nm@18KV	4nm@20KV	3nm@20KV	2.5nm@15KV
Magnification	150000x	200000x	360000x	360000x	1000000x
Electron Gun	Tungsten	Tungsten	Tungsten	LaB6	Schotty FEG
Voltage	5/10/15KV	3-18KV	3-20KV	3-20KV	1-15KV
Detector	BSE+SE	BSE+SE	BSE+SE	BSE+SE	BSE+SE
Navigation CCD	CCD	CCD	CCD+Cabin Camera	CCD+Cabin Camera	CCD+Cabin Camera
Vaccum Time	90s	90s	30s	90s	180s
Vaccum System	Mechanical Pump Molecular Pump	Mechanical Pump Molecular Pump	Mechanical Pump Molecular Pump	Mechanical Pump Molecular Pump Ion Pump	Mechanical Pump Molecular Pump Ion Pump x2
Vaccum	High Vaccum 1x10-1Pa	High Vaccum 1x10-1Pa	High Vaccum 1x10-1Pa	High Vaccum 5x10-4Pa	High Vaccum 5x10-4Pa

Stage	XY Stage, 40x30/40x40mm	XY Stage, 40x30/40x40mm	XY Stage, 60x55mm	XY Stage, 60x55mm	XY Stage, 60x55mm
Stage Precision	-	Position Precise 5um			
Working Distance	5-35mm	5-35mm	5-73.4mm	5-73.4mm	5-73.4mm
Max Specimen	80x42x40mm	80x42x40mm	100x78x68.5mm	100x78x68.5mm	100x78x68.5mm
Optional	Tungsten Filament 20 pcs/box			Lab6 Filament	Field Emission Lamp
	EDS Oxford AZtecOne with XploreCompact 30				
	-	Low Vaccum 1-100Pa		Low Vaccum 1-30Pa	
	-	Z Axis Module	3 Axis Stage, X 60mm, Y 50mm, Z 25mm		
	-	T Axis Module	3 Axis Stage, X 60mm, Y 50mm, T ±20°		
	-	-	5 Axis Stage, X 90mm, Y 50mm, Z 25mm, T ±20°, R 360°		
	-	-	Shock-absorbing Platform, For 3 Axis, 5 Axis Stage		
	-	Deceleration Mode 1-10KV To Watch Non-conduct Samples, Only For BSE			
	-	In-Situ Stage From Original Factory, Heating, Cooling, Stretch, etc.			
	UPS				

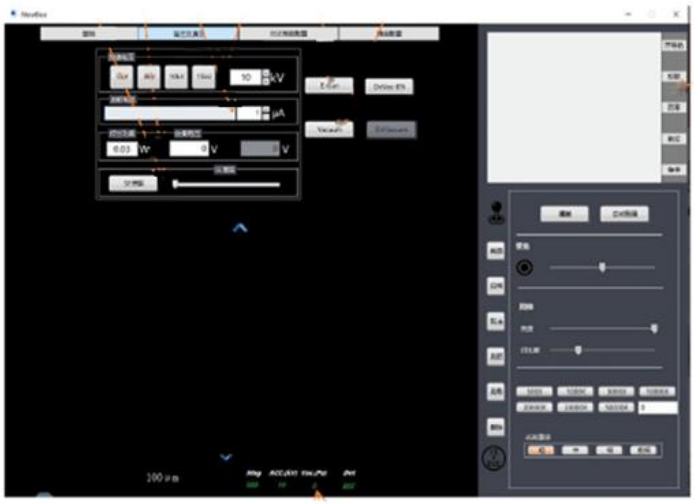
A63.7001 Software Description

OPTO-EDU

▶ Software Interface



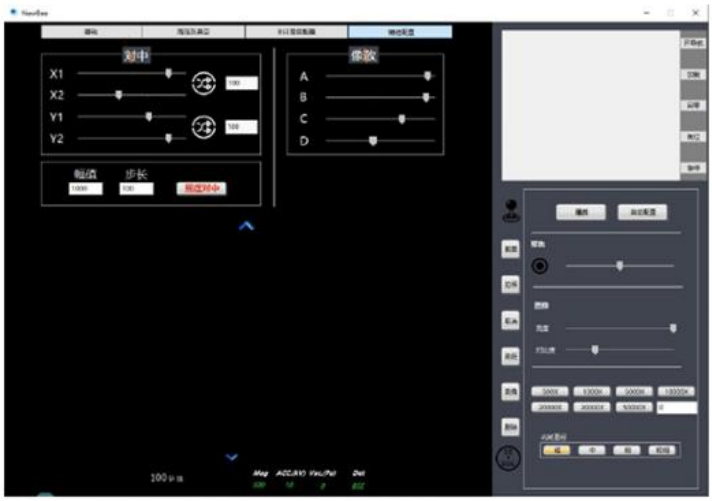
▶ Stake Out, Evacuate And Turn On High Pressure.



▶ Image Display Configuration And Adjustment

▶ BSE Advanced Configuration

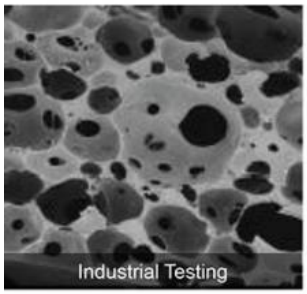
▶ Lens configuration

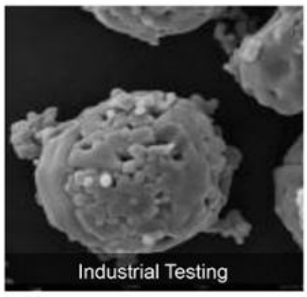


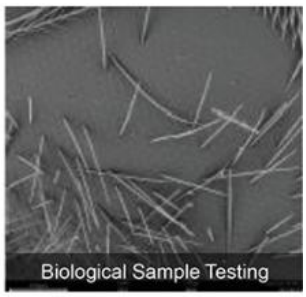
▶ Turn Off The High Pressure, Vent The Vacuum.

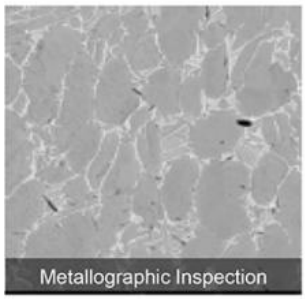
A63.7001 Software Installation And Application

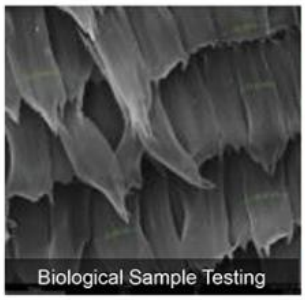
OPTO-EDU

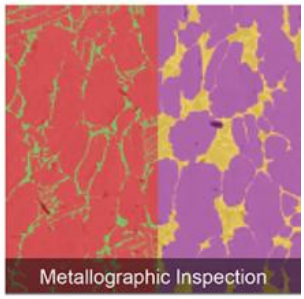

Industrial Testing

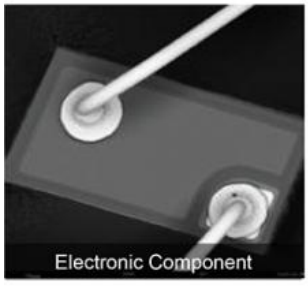

Industrial Testing

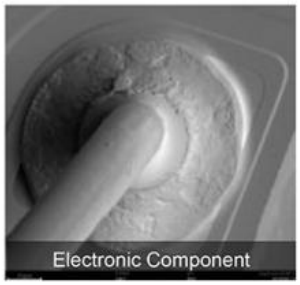

Biological Sample Testing

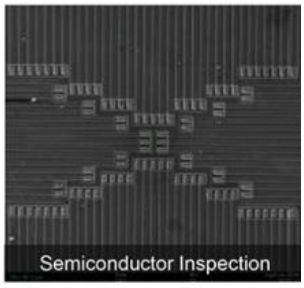

Metallographic Inspection

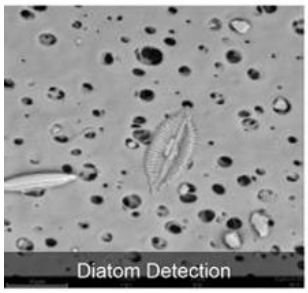

Biological Sample Testing

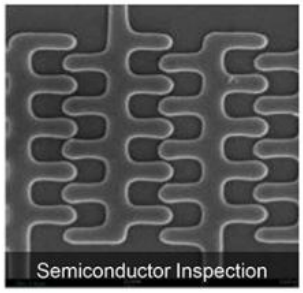

Metallographic Inspection

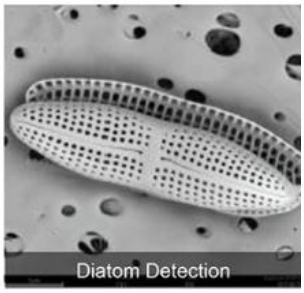

Electronic Component

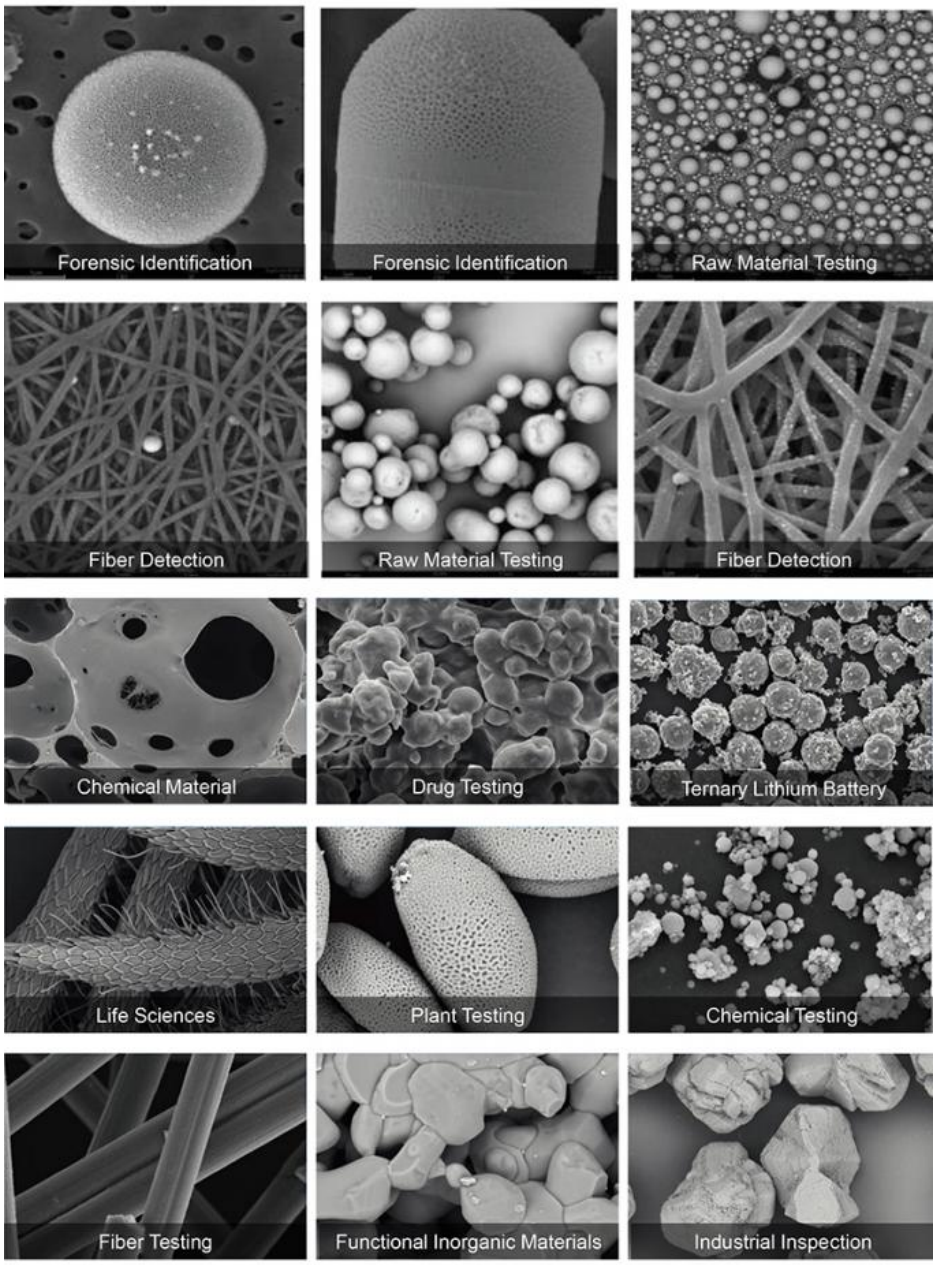

Electronic Component


Semiconductor Inspection


Diatom Detection

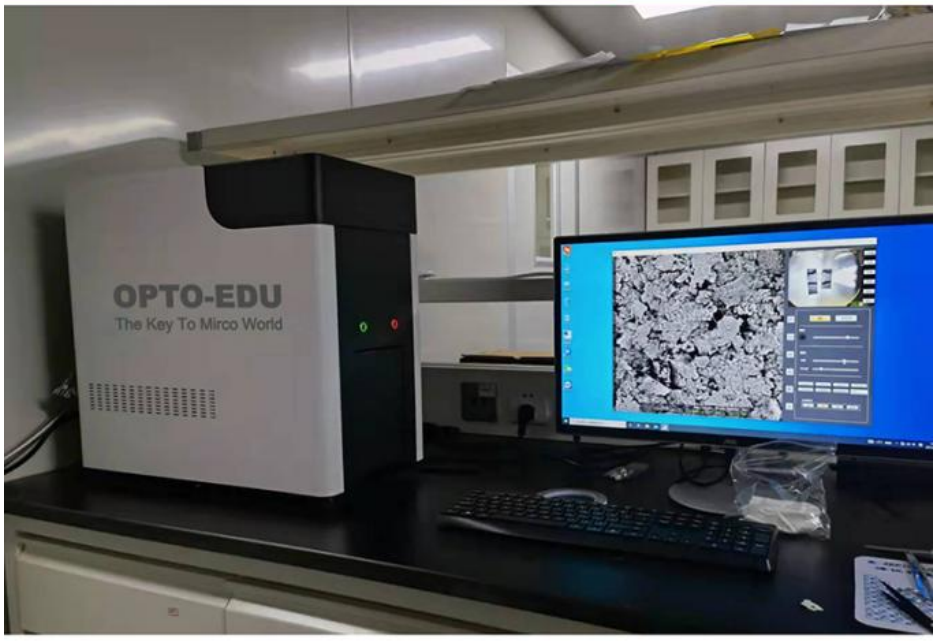

Semiconductor Inspection


Diatom Detection

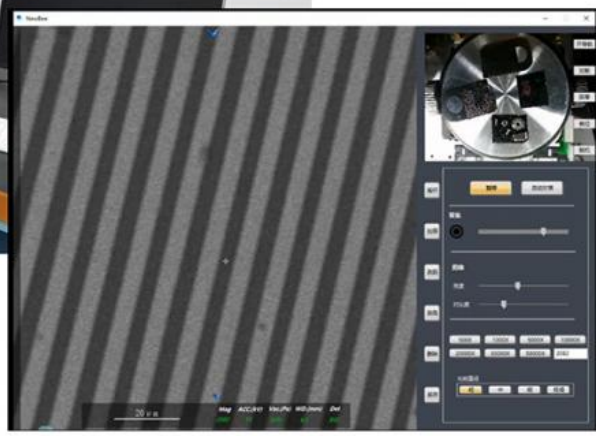

Forensic Identification
Forensic Identification
Raw Material Testing
Fiber Detection
Raw Material Testing
Fiber Detection
Chemical Material
Drug Testing
Ternary Lithium Battery
Life Sciences
Plant Testing
Chemical Testing
Fiber Testing
Functional Inorganic Materials
Industrial Inspection

A63.7001 Real Photo From Customer

OPTO-EDU



A63.7001



Tungsten Filament Scanning
Electron Microscope,
SE+BSE, 150000x,
10nm@15KV

A63.7001 Tungsten Filament Scanning Electron Microscope, SE+BSE, 150000x

Opto-Edu (Beijing) Co., Ltd.

0086 13911110627 sale@optoedu.com cnoec.com

F-1501 Wanda Plaza, No. 18 Shijingshan Road, Beijing 100043, China