OPTO-EDU A63.7235 High-Throughput Field Emission Scanning Electron Microscope 12KV 600000x

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: CNOEC, OPTO-EDU
- Certification: CE, Rohs
- Model Number: A63.7230
- 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

- Electron Gun: Schottky Type Thermal Field Emission Electron Source Beam Current Stability <1%/day
- Objective Lens System: SORRIL™ Electromagnetic Compound Lens Sample Stage Deceleration Mode
- Standard Working Distance: 1.5mm
- Maximum Field Of View: 100um (Standard Working Distance) 1mm (Maximum Working Distance)
- Electron Detector (Standard): In-column SE Detector In-lens BSE Detector
- W.D. Height Detection: Focus Tracking™ Automatic Focus Tracking System
- Highlight: **Field Emission Scanning Electron Microscope 12KV** , **High-Throughput Scanning Microscope 600000x** , **OPTO-EDU SEM with high magnification**

More Images

Our Product Introduction

Product Description

OPTO-EDU A63.7235 High-Throughput Field Emission Scanning Electron Microscope 12KV 600000x

Key Features

- Resolution 1.5nm@1Kv, Automatic Acquisition Stitching Large Image Upto cm2 Size
- Dual-channel Synchronous Imaging of SE And BSE Each 100M Pixels/s
- Comprehensive Imaging Speed > 10 Times That of Traditional Electron Microscopes
- Rapid Generation of Data Analysis Reports From Massive SEM Images
- Cross-scale Material Characterization From Millimeters to Nanometers

The A63.7235 High-Throughput Field Emission Scanning Electron Microscope is designed for cross-scale large-scale sample SEM characterization and analysis, widely used in research and industry. Its automated ultra-high-speed nano imaging technology provides an extraordinary imaging experience.

Core Capabilities:

- Resolution 1.5nm@1Kv, Automatic Acquisition Stitching Large Image Up to cm2 Size
- Dual-channel Synchronous Imaging of SE And BSE Each 100M Pixels/s
- Comprehensive Imaging Speed > 10 Times That of Traditional Electron Microscopes
- Rapid Generation of Data Analysis Reports From Massive SEM Images
- Cross-scale Material Characterization From Millimeters to Nanometers

The A63.7235 High-Throughput Field Emission Scanning Electron Microscope, independently developed by Opto-Edu, achieves high-throughput imaging through systematic innovative design in imaging technology, motion platform, circuit control, and intelligent algorithms, with imaging speeds exceeding traditional electron microscopes by dozens of times. It adopts direct electron detectors, overcoming limitations of traditional SEM technology in speed, accuracy, and sample damage.

Technical Specifications

Electron Optical Lens	
Electron Gun	Schottky Type Thermal Field Emission Electron Source Beam Current Stability <1%/day
Objective Lens System	SORRIL™ Electromagnetic Compound Lens Sample Stage Deceleration Mode
Resolution	1.5 nm @ 1kV 1.3nm @ 3kV
Immersion Electromagnetic Lens (*)	
Acceleration Voltage	0.1-12 kV Continuously Adjustable (*)
Magnification	500X~600,000X (SEM Image) 1X-600X (Optical Navigation)
Beam Current	50pA~30nA (*)
Standard Working Distance	1.5mm

Maximum Field of View	100um (Standard Working Distance) 1mm (Maximum Working Distance)
Electron Beam Blanker	Electrostatic Blanker

Advanced Features

► Ultra-fast Imaging

Achieved dual-channel synchronous imaging of secondary electrons and backscattered electrons through independently developed hardware and software design: video-level high-resolution imaging

High-definition video-level frame rate allows real-time observation of sample dynamic changes

► High Imaging Quality

Unique immersion electromagnetic compound lens system effectively reduces optical aberrations

Electrostatic scanning deflection system reduces image edge distortion

In-Lens SE and BSE semiconductor direct electron detectors enable dual-channel simultaneous high-speed imaging

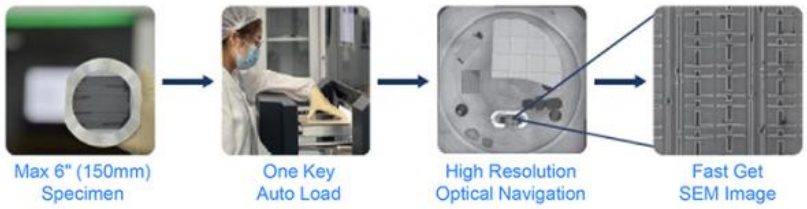
Active compensation system eliminates environmental interference

► Cross-Scale Large-Scale Imaging

Ultra-high-speed scanning imaging capability with fully automatic focusing tracking system

A.I. image processing algorithms enable high-resolution fully automatic uninterrupted matrix scanning

Automatically stitching to obtain large-size nanometer-level resolution panoramic imaging



► Intelligent Analysis

Big data intelligent analysis, rapid generation of data analysis reports

Intelligent image processing, customized image measurement, statistics, and analysis

► Simple Operation

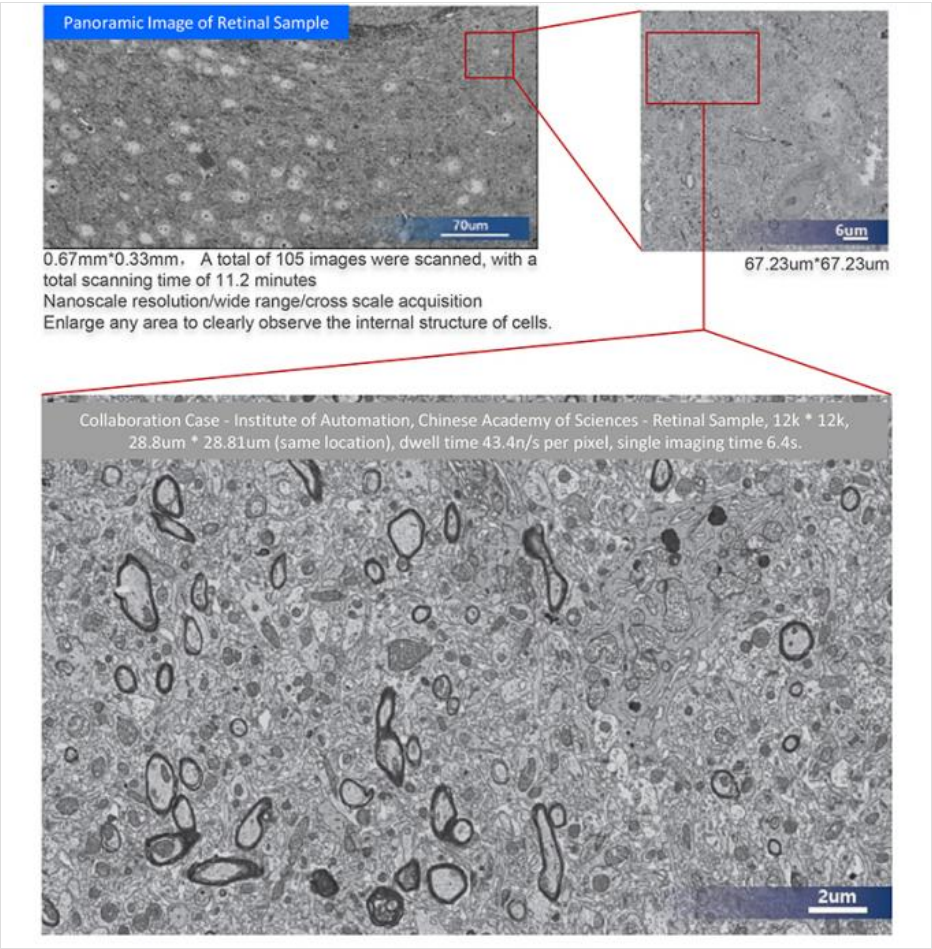
Fully automatic sample loading and navigation, one-click sample replacement

Large field optical imaging navigation seamlessly connects with SEM imaging

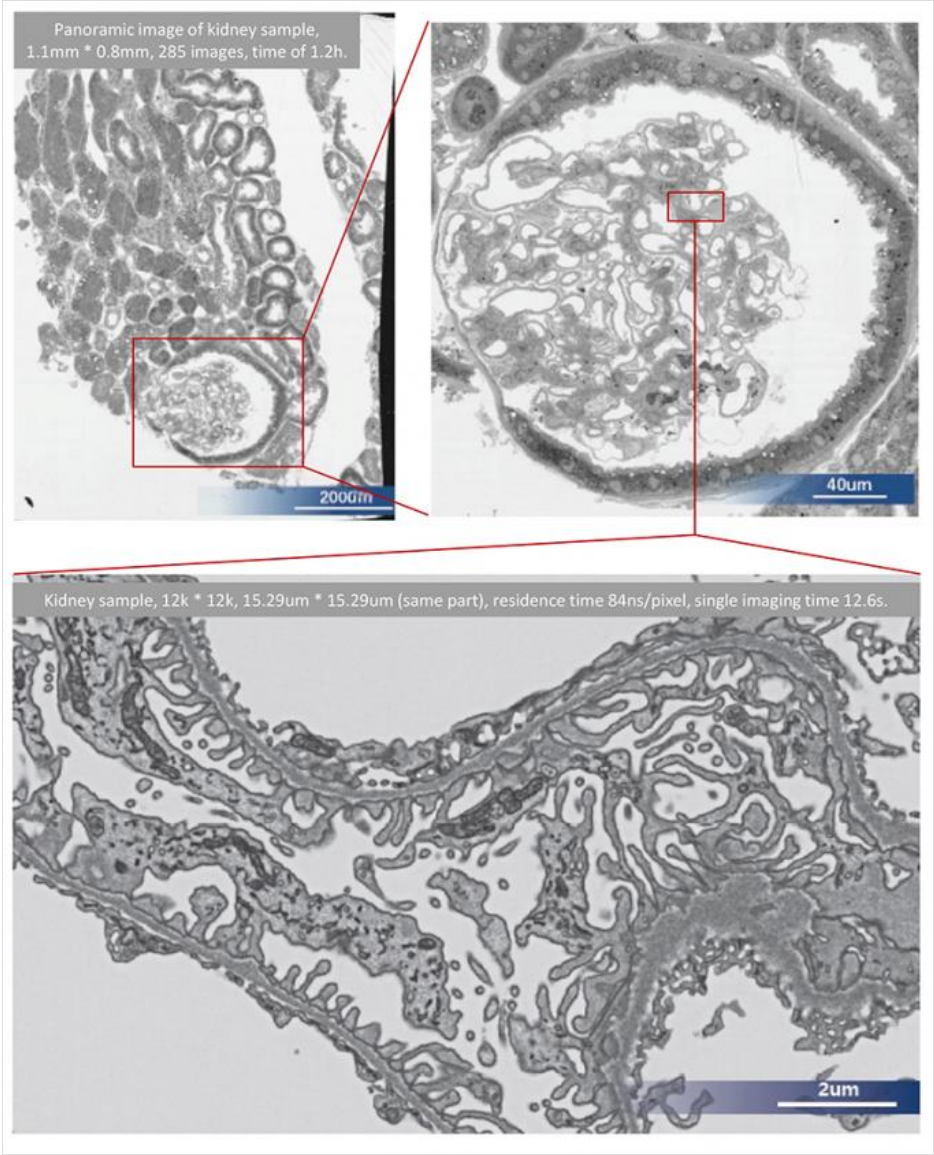
24/7 fully automated unmanned operation capability

Application Examples

Observe the microstructure of cells in mouse brain, heart, liver, and kidney under scanning electron microscopy, using Arrays Scan to perform fully automatic scanning on target area samples.



The sample is prepared using a continuous slicing method, collecting up to hundreds of slices, placing them on a sample circle, and loading them into SEM at once.



A63.7235 Materials Science Field Cases OPTO-EDU

Pathological Analysis: Comprehensively collect all detailed information on the entire slice, and zoom in on any area to clearly observe the subcellular organelle ultrastructure on the kidney tissue.

Notes

* Note:
: Optional non-immersion electromagnetic lens for observing ferromagnetic materials
: Optional 0~30kV electron gun
: Optional 100nA
: Optional laser interferometer

Opto-Edu (Beijing) Co., Ltd.

0086 13911110627 sale@optoedu.com cnoec.com

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