



Opto Edu A62.4510 Electron Probe Microscope , Spm Microscope Usb

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: OPTO-EDU
- Certification: CE, Rohs
- Model Number: A62.4510
- Minimum Order Quantity: 1pc
- Price: FOB \$1~1000, Depend on Order Quantity
- Packaging Details: Carton Packing, For Export Transportation
- Delivery Time: 5~20 Days
- Payment Terms: L/C, T/T, Western Union
- Supply Ability: 5000 pcs/ Month



Product Specification

- Work Mode: "Contact Mode Tapping Mode Optional Friction Mode Phase Mode Magnetic Mode Electrostatic Mode"
- Current Spectrum Curve: "RMS-Z Curve F-Z Force Curve"
- XY Scan Mode: "Probe Driven Scanning, Piezo Tube Scanner"
- XY Scan Range: 70×70um
- XY Scan Resolution: 0.2nm
- Z Scan Range: 5um
- Z Scan Resolution: 0.05nm
- Scan Speed: 0.6Hz~30Hz
- Scan Angle: 0~360°
- Sample Weight: ≤15Kg
- Stage Size: "Dia.100mm Optional Dia.200mm Dia.300mm"
- Stage XY Moving: "100x100mm, Resolution 1um Optional 200x200mm 300x300mm"

Product Description

Probe Scanning Atomic Force Microscope

Gantry scanning head design, marble base, vacuum adsorption stage, sample size and weight are basically unlimited
 Intelligent needle feeding method with automatic detection of motor-controlled piezoelectric ceramics to protect probes and samples
 Automatic optical positioning, no need to adjust focus, real-time observation and positioning probe sample scanning area
 Equipped with closed metal shield, pneumatic shock-absorbing table, strong anti-interference ability;
 Integrated scanner nonlinear correction user editor, nanometer characterization and measurement accuracy is better than 98%



A62.4510

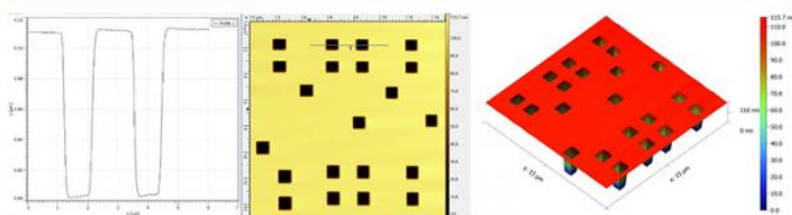
Probe Scanning Atomic Force Microscope (AFM)



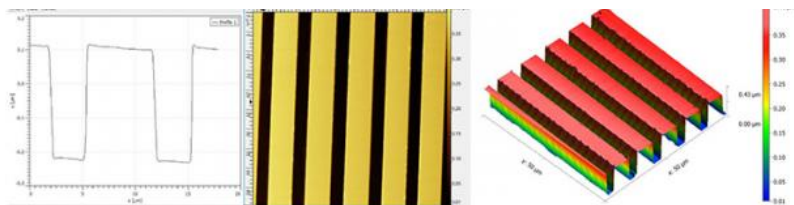
Product Details

- ◆ The first commercial atomic force microscope in China that keeps the sample stationary and the probe moves and scans;
- ◆ The sample size and weight are almost unlimited, especially suitable for the detection of very large samples;
- ◆ The sample stage is highly expandable, which is very convenient for multi-instrument combination to realize in-situ detection;
- ◆ Electric control of sample moving table and lifting table, which can be programmed with multi-point position to realize fast automatic detection;
- ◆ Gantry scanning head design, marble base, vacuum adsorption and magnetic adsorption stage;
- ◆ The motor automatically controls the intelligent needle feeding method of the piezoelectric ceramic automatic detection to protect the probe and the sample;
- ◆ High magnification auxiliary optical microscope positioning, real-time observation and positioning of probe and sample scanning area;
- ◆ Integrated scanner nonlinear correction user editor, nanometer characterization and measurement accuracy better than 98%.

Application Case

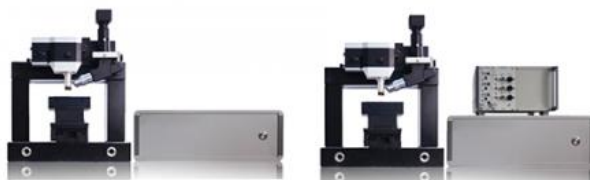


2D raster/scan range 15μm × 15μm

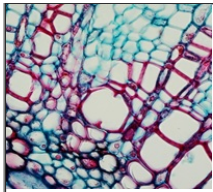
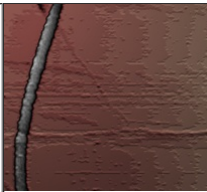


1D raster/scan range 50μm×50μm

Specification



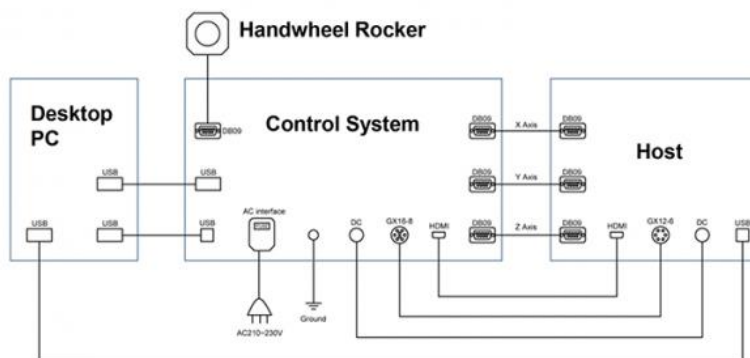
	A62.4510	A62.4511	
Work Mode	Contact Mode	Contact Mode	
	Tapping Mode	Tapping Mode	
	Optional	Optional	
	Friction Mode	Friction Mode	
	Phase Mode	Phase Mode	
	Magnetic Mode	Magnetic Mode	
	Electrostatic Mode	Electrostatic Mode	
Current Spectrum Curve	RMS-Z Curve	RMS-Z Curve	
	F-Z Force Curve	F-Z Force Curve	
XY Scan Mode	Probe Driven Scanning, Piezo Tube Scanner	Sample Driven Scanning, Closed Loop Piezoelectric Shift Scanning Stage	
XY Scan Range	70×70um	Closed Loop 100×100um	
XY Scan Resolution	0.2nm	Closed Loop 0.5nm	
Z Scan Mode		Probe Driven Scanning	
Z Scan Range	5um	5um	
Z Scan Resolution	0.05nm	0.05nm	
Scan Speed	0.6Hz~30Hz	0.6Hz~30Hz	
Scan Angle	0~360°	0~360°	
Sample Weight	≤15Kg	≤0.5Kg	
Stage Size	Dia.100mm	Dia.100mm	
	Optional	Optional	
	Dia.200mm Dia.300mm	Dia.200mm Dia.300mm	
Stage XY Moving	100x100mm, Resolution 1um	100x100mm, Resolution 1um	
	Optional	Optional	
	200x200mm 300x300mm	200x200mm 300x300mm	
Stage Z Moving	15mm, Resolution 10nm	15mm, Resolution 10nm	
	Optional	Optional	
	20mm 25mm	20mm 25mm	
Shock-Absorbing Design	Spring Suspension	Spring Suspension	
	Optional Active Shock Absorber	Optional Active Shock Absorber	
Optical System	Objective 5x 5.0M Digital Camera	Objective 5x 5.0M Digital Camera	
	Optional Objective 10x Objective 20x	Optional Objective 10x Objective 20x	
Output	USB2.0/3.0	USB2.0/3.0	
Software	Win XP/7/8/10	Win XP/7/8/10	
Main Body	Gantry Scan Head, Marble Base		Gantry Scan Head, Marble Base
Microscope	Optical Microscope	Electron Microscope	Scanning Probe Microscope
Max Resolution (um)	0.18	0.00011	0.00008
	Oil immersion 1500x	Imaging diamond carbon atoms	Imaging high-order graphitic carbon atoms

Remark			
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Probe-Sample Interaction	Measure Signal	Information
Force	Electrostatic Force	Shape
Tunnel Current	Current	Shape, Conductivity
Magnetic Force	Phase	Magnetic Structure
Electrostatic Force	Phase	charge distribution

	Resolution	Working Condition	Working Temperature	Damage to Sample	Inspection Depth
SPM	Atom Level 0.1nm	Normal, Liquid, Vacuum	Room or Low Temperature	None	1~2 Atom Level
TEM	Point 0.3~0.5nm Lattice 0.1~0.2nm	High Vacuum	Room Temperature	Small	Usually <100nm
SEM	6-10nm	High Vacuum	Room Temperature	Small	10mm @10x 1um @10000x
FIM	Atom Level 0.1nm	Super High Vacuum	30~80K	Damage	Atom Thickness

System Diagram



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