

Globally Advanced Wafer Prober Testing Technology


SEMISHARE

**Global advanced
wafer probe manufacturer**



Learn more on the web
www.semishare.com

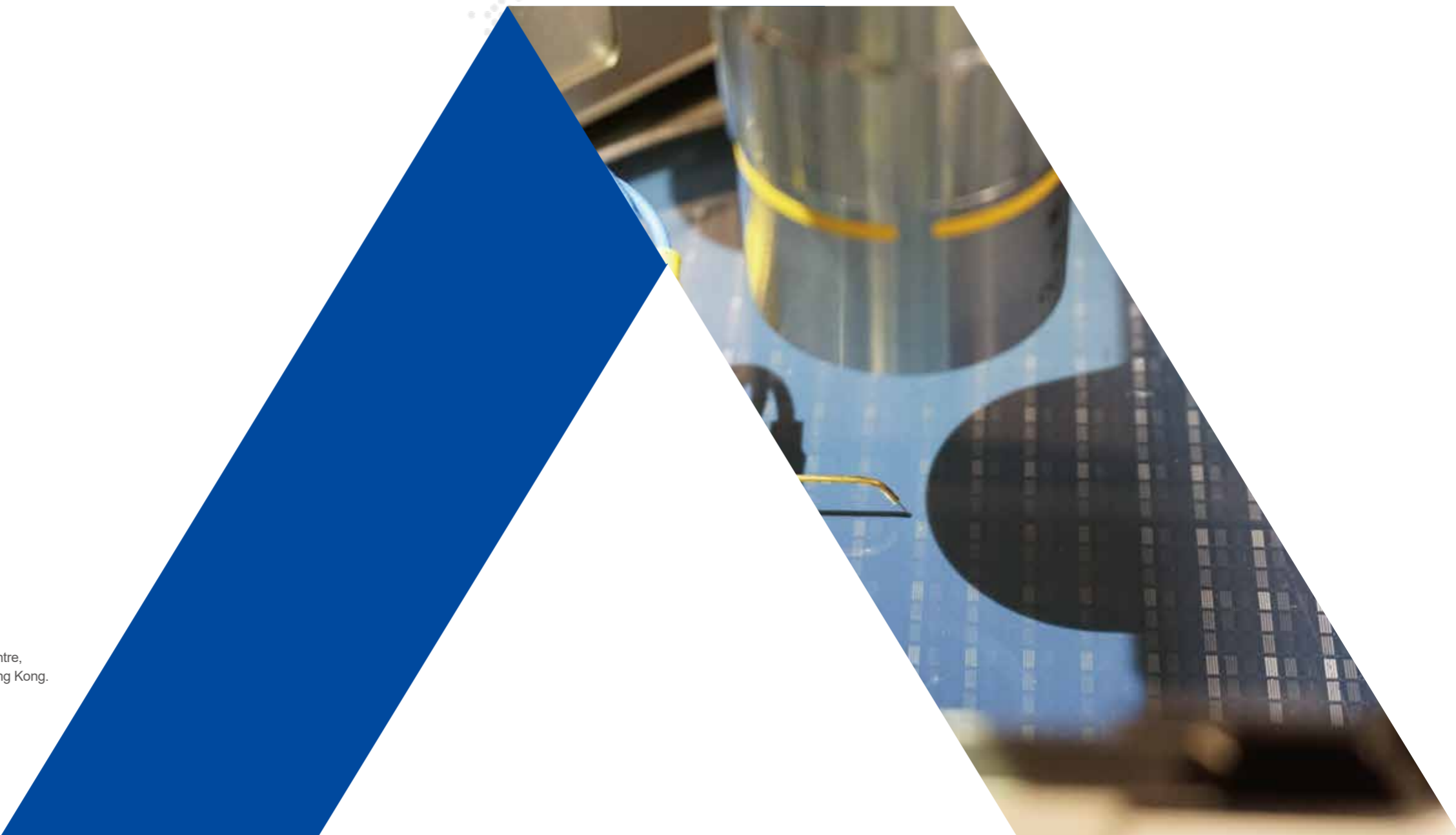
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ENTERPRISE

PROFILE

Advanced Wafer Probe Station Testing Technology Worldwide

SEMISHARE is committed to providing customers with advanced level wafer prober equipment and semiconductor test and measurement solutions at present, the global customer service has more than 1000 well-known institutions and enterprises, and including scientific research institutions, research institutes, the chip design companies, fabs, sealing test factory, panel factory, etc., as China's semiconductor industry is the rise of the enterprise, benchmarking in semiconductor test and measurement field are SEMISHARE already have many successful cases and technology experience, is the world's leading wafer prober manufacturers.

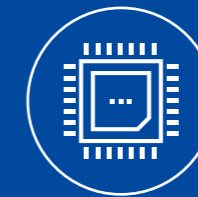
SEMISHARE provides standardized and customized probe table systems that cover the entire spectrum of test and measurement applications from the laboratory to the wafer fabrication facility, including manual probe table, semi-automatic probe table, automatic probe table, RF probe table, high power probe table, low temperature probe table, vacuum probe table, TEG/OLED laser repair machine, etc. The equipment is widely used in I-V/C-V test, RF/mmW test, high voltage/high current test, MEMS, optoelectronic device test, wafer level failure analysis, Hall test, LCD/OLED panel laser repair, etc.



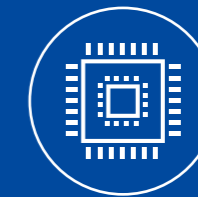
Founded In 2009



Headquarters:
Shenzhen, China



Shenzhen
High-tech Enterprise



National High And New
Technology Enterprise

PRODUCTS

AND APPLICATIONS

We will customers innovative concepts into achievement, help the judge wafer device performance, and achieve accurate and reliable measurement analysis, including the provision of materials/components/CV IV characteristic test, LD/PD/LED light intensity/wavelength testing, characteristics of the radio frequency device failure analysis, internal wiring chip/electrode/PAD test and other technical solutions, together with the customer in the process of chip development and production to make technology optimization and performance improvement, eventually achieving technology quickly.

Customer Object

<p>1</p>  <p>Education Of Science And Technology</p> <ul style="list-style-type: none"> Academic Institution 	<p>2</p>  <p>Experiment Research</p> <ul style="list-style-type: none"> Lab Research Institution Professional Testing Institution Chip Design Company 	<p>3</p>  <p>Commercial Manufacture</p> <ul style="list-style-type: none"> Wafer Factories Sealing Test Factory Panel Plants
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Application Direction

<p>Integrated Circuit Direction</p> <ul style="list-style-type: none"> Wafer testing Chip line modification Failure analysis Chip reverse photography 	<p>PCB Direction</p> <ul style="list-style-type: none"> PCB printed circuit board electrical testing
<p>LED Direction</p> <ul style="list-style-type: none"> Test the photoelectric efficiency of the battery EL testing Electrical testing 	<p>Mask Direction</p> <ul style="list-style-type: none"> Mask defect repair
<p>FPD Direction</p> <ul style="list-style-type: none"> LCD, OLED highlights/line repair Panel probe testing 	<p>Direction Of Photovoltaic Solar Energy</p> <ul style="list-style-type: none"> Draw/line the solar cells
	<p>Touch Screen Direction</p> <ul style="list-style-type: none"> Touch screen ITO short circuit laser repair Laser corrosion

R&D

AND PRODUCTION

Research And Development

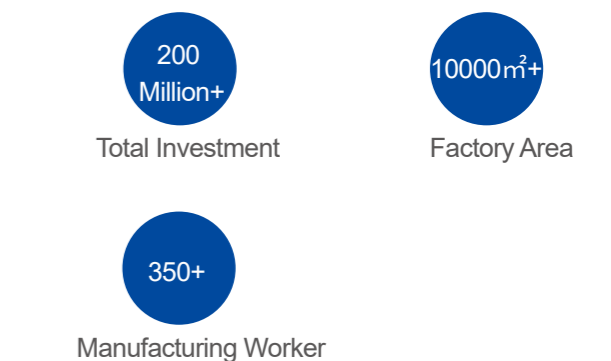
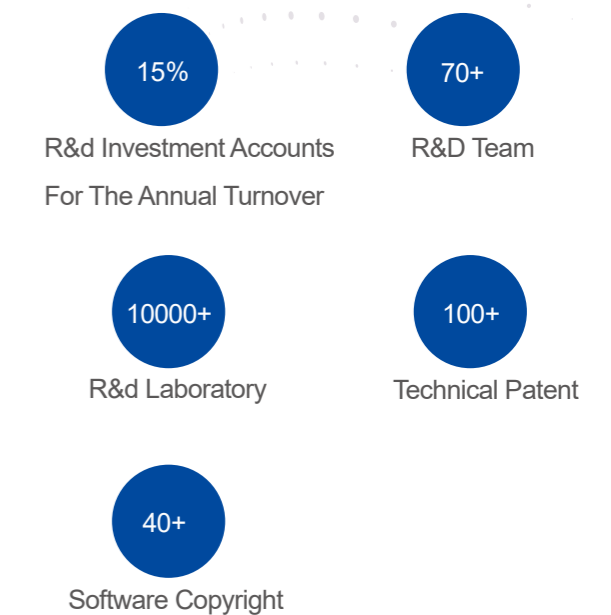
Enhance the technical research and development strength of SEMISHARE technology through industry-university-research cooperation

With technological innovation as the core, the company continues to invest 15% of its annual expenses in technological research and development, renovation of experimental equipment and introduction of technical personnel. The company gathered from China, South Korea, Japan, Italy and other global industry deep technical experts, and established a doctor, master, senior engineers composed of a professional R & D team. At the same time, the company maintains close technical cooperation with scientific research institutions such as Zhejiang University and South China University of Science and Technology, and jointly builds leading technological research and development strength through the combination of independent research and development with industry, universities and research institutes.

Production

The most abundant product line of probe bench in the industry

On the basis of technology, we have the industry's advanced production technology and quality control testing system; In order to deeply integrate intelligent manufacturing and lean production, under the guidance of ISO9001 and ISO14001 international management systems, we strictly implement standardized operations such as product standards, quality control, fine production, project management and capacity improvement. Through the vertical combination of technology and production, we can better ensure the process quality and stability of products.



MARKETING NETWORK

Domestic Marketing Service Network

Shenzhen, Hong Kong, Beijing, Shanghai, Xi 'an, etc

Foreign Marketing Service Network

USA, UK, Germany, Greece, Australia, Singapore, etc

China Market

Based in China, our products and technical solutions have been applied to more than 1000 domestic customers; Among them, 80% of the top 100 domestic semiconductor r&d institutions are our strategic partners. We have set up marketing service networks in Shenzhen, Hong Kong, Beijing, Shanghai, Xi 'an and other cities to gradually build the service advantages of Local enterprises in China, so as to quickly respond to customer needs and provide end-to-end marketing services.

Global Marketing

In the world, the product with superior performance has won the trust of many customers, and the market influence is increasing year by year. We have achieved excellent market performance in the United States, The United Kingdom, Germany, Greece, Australia, Singapore and other countries, and established long-term and stable strategic cooperative relations with a number of well-known research institutions around the world.

Partners

- Research Institute
- Research Institute
- Chip Design Company
- Wafer Factory
- Packaging And Testing Factory
- Panel Factory

1000+
Customer Service

1. Panel Industry Company



3. Colleges And Universities



2. Semiconductor Industry Company



4. Research Institute



CORE COMPETITIVENESS

We insisted on the drivers of both new and focus on building to the technology for nuclear, manufacturing for the core competitiveness of enterprises, over the years, we constantly expand the scale of the enterprise, integration of resources around to technology research and development, product development, intelligent manufacturing, market service and so on many aspects to carry on the fine operation management, industry status, the core competitiveness of building with independent model shape semiconductor testing equipment industry in China, and continues to establish SEMISHARE strategic advantage in the market in the future.





01

Probe Station

M Series / Miniature Probe

E Series / Economical Probe

H Series / High Match Probe

FA Series / Failure Analysis Probe

C Series / High And Low Temperature Probe

CG Series / High And Low Temperature Vacuum Probe

X Series / Semi-Automatic Probe

A Series / Fully Automatic Mass Production Probe

TEG Series / Panel Probe



Introduction

M series is a simple wafer test probe platform based on college education and laboratory. Ergonomic design is simple to operate, compact structure design greatly reduces the space occupied by the equipment, under the premise of ensuring high precision testing, but also very cost-effective. The modular design of UPStart allows you to add multiple accessories for more performance, while supporting late extension loading and upgrading. If your test PAD is greater than 30um, the M series is one of your preferred devices in the lab.

Application Direction

Chip and LD/LED/PD test, PCB/ package device test, RF test, electrode /PAD test over 50 microns, IV/CV characteristic test of material/device, etc.

Product Feature

- Compact and sturdy frame structure design, stable performance
- Easy operation and quick start, reduce the training time of equipment use
- The modular structure of UPStart supports late expansion and upgrade of devices
- Chuck with 3 - stage vacuum adsorption control
- New upgraded chuck mobile platform
The needle seat platform with stronger adsorption
- TNT frame support structure design
The microscope bracket is designed with 360° rotation
- Adaptive shock absorbing base
- A variety of Micro Positioners matching

Model		SM-4	SM-6 mini	SM-6
Dimension		L 400mm*W 400mm*H 550mm	L 400mm*W 400mm*H 550mm	L 680mm*W 530mm*H 550mm
Weight (about)		30KG	35KG	40KG
Electricity Demand		220VC,50~60Hz		
Chuck	Size & Rotation angle	4", 360° Rotation	6", 360° Rotation	6", 360° Rotation
	X-Y Moving range	4" * 4"	4" * 4"	6" * 6"
	Moving resolution	10um		
	Sample fixed mode	Vacuum adsorption		
	Electrical design	Electrical Floating with Banana plug adapter, can be used as a backside electrode		
Platen	U Shape	6 Micropositioners available		8 Micropositioners available
	Microscope	360° Rotation, Z : 50.8 mm		
Microscope	Magnification	16~100X (200X as a option)		
	CCD Pixel	50W (Analog) / 200W (Digital) / 500W (Digital)		
	Micropositioner	X-Y-Z Moving range	12mm-12mm-12mm	
Mechanical resolution		10µm / 2µm / 0.7µm		
Current leakage accuracy		10pA / 100fA (with Shielding Box)		
Cable connectors		Banana head / Crocodile clip / Coaxial / Triaxial		
Optional Accessories	Hot chuck			Light intensity / wavelength testing
	Shielding box			RF Testing accessories
	Special Adapter			Active probe
	Vibration Free Table			Low current / Capacitance test
	Gold-plated chuck			Integration of intergral sphere
	Coaxial / Triaxial chuck			Fixture for Fiber optic coupler test
	Chuck quick Up/Down and fine adjustment option			Fixture of PCB / IC test
	Chuck rotation fine adjustment			Special Custom design



Introduction

Economic probe table E series probe table has excellent mechanical system, stable structural performance, ergonomic design, more convenient operation, support multi-function upgrade, more product functions. The products are mainly used in the manufacturing and research fields of integrated circuit, LED, LCD, solar cell and other industries.

Application Direction

Chip and LD/LED/PD test, electrode /PAD test over 1 micron, PCB/ package device test, MATERIAL/device IV/CV characteristic test, high frequency test, radio frequency test, etc

Product Feature

- High cost performance configuration, affordable price
- Ergonomic design, convenient and comfortable to operate
- Leading internal anti - shock system device, more stable operation
- Compatible with high power metallographic microscope for fine adjustment and movement
- Precise screw drive structure, high precision motion system
- No backtrip difference design, accurate positioning
- Coaxial drive chuck, high moving precision
- Support for loading upgrade

Model	SE-4	SE-6	SE-8	SE-12	
Dimension	L: 580mm* W: 620mm* H: 730mm	L: 640mm* W: 700mm* H: 730mm	L: 660mm* W: 660mm* H: 700mm	L: 1030mm* W: 820mm* H: 730mm	
Weight (about)	70KG	80KG	85KG	180KG	
Electricity Demand	220VC,50~60Hz				
Chuck	Size & Rotation angle	4", 360° Rotation	6", 360° Rotation	8", 360° Rotation	12", 360° Rotation
	X-Y Travel Range	4" * 4"	6" * 6"	8" * 8"	12" * 12"
	Z Travel Range	6mm (Fast switching) / 6mm (Fine-tune)			
	Moving Resolution	10µm			
	Sample fixed mode	Vacuum adsorption			
	Electrical design	Electrical Floating with Banana plug adapter, can be used as a backside electrode			
Platen	U Shape	6 micropositioners available	8 micropositioners available	10 micropositioners available	12 micropositioners available
Microscope	Moving range	X-Y : 2" * 2", Z : 50.8mm			
	Moving Resolution	1µm			
	Switching lens mode	Microscope Manually Tilting 30° by Lever			
	Magnification	16~100X/20~4000X			
	Lens specification	Eyepiece: 10X ; Objective lens : 5X, 10X, 20X, 50X , 100X(Optional)			
	CCD Pixel	50W (Analog) / 200W (Digital) / 500W (Digital)			
Micropositioner	X-Y-Z Moving range	12mm-12mm-12mm / 8mm-8mm-8mm			
	Mechanical resolution	10µm / 2µm / 0.7µm / 0.1µm			
	Current leakage accuracy	10pA / 100fA (when with Shielding Box)			
	Cable connectors	Banana head / Crocodile clip / Coaxial / Triaxial			
Application	IC/LD/LED/PD test, PCB / Packaged device test, RF test etc.				
Optional Accessories	Microscope tilt mechanism (Tilting 30° Manually by Lever)				Gold-plated chuck
	Microscope pneumatic lifting mechanism				Coaxial / Triaxial chuck
	Laser cutting and repairing				Chuck quick pull-out mechanism
	Probe clamp				Chuck rotation fine adjustment
	Dark field of microscope / DIC / Normarski test, Light intensity / wavelength test interface accessory				Light intensity / wavelength selection
	Liquid crystal leakage analysis package				RF Testing accessories
	High voltage and high current measurement package				Active probe
	Hot chuck				Low current / Capacitance test
	High/Low temperature chuck				intergration of intergral sphere
	Shielding box				Fixture for Fibre optic coupler test
	Special adapter				Fixture of PCB / Package test options
	Vibration free table				Special Custom design
	Charancteristic	1. Gantry design of the Microscope.			
2. The Microscope can be tilted or pneumatic lifted to change objective lens easily.					
3. Can be upgraded to do RF, high current testing and laser repair applications.					
4. High moving accuracy.					



Introduction

H series is a high-end comprehensive manual test probe configuration, the device has excellent stability and maneuverability, and the test precision are higher than that of the rest of the industry brand, unique pneumatic chuck mobile technology, flexible UPStart modular structure design, enhance sexual shock system, these are all SEMISHARE advanced innovation technology advantage in the industry. At the same time, the equipment can support late expansion and upgrading, to meet the needs of customers for a variety of test applications, the equipment is very suitable for R & D center and major university laboratories step budget acquisition investment.

Application Direction

Wafer I-V/C-V test, RF/mmW test, MEMS, Hall test, HIGH-voltage/high-current test, LD/LED/PD test, PCB/package device test, in-chip circuit/electrode /PAD test, etc

Product Feature

- Ergonomic design, operation more human
- Solid and stable platform frame structure
- Easy operation and fast start, reduce the time of equipment training
- UPStart modular structure, equipment support late expansion and upgrade
- The chuck moving platform is driven by large handle differential head for comfortable operation
- TMCS product customization based on UPStart module
- Three - stage lifting needle base platform
- Design of stiffened metal frame structure
- Microscope air - controlled lifting control
- Air floating self-balancing shock table
- Chuck Air bearing move TM
- Loadable laser

Specification

Model	SH-6	SH-8	SH-12
Dimension	L 820mm*W 720mm*H 890mm	L 960mm*W 850mm*H 900mm	L 1300mm*W 920mm*H 920mm
Weight (about)	170KG	230KG	300KG
Electricity Demand	220VC, 50~60Hz		
Chuck	Size & Rotation angle	6", 360° Rotation	8", 360° Rotation
	X-Y Travel range	6" * 6"	8" * 8"
	Moving resolution	1μm	
	Sample fixed mode	Vacuum adsorption	
	Electrical design	Electrical Floating with Banana plug adapter, can be used as a backside electrode	
Platen	U shape platen	6 micropositioners available	8 micropositioners available
	Move range & adjustment mode	Platen can be quickly lifted up and down 6mm for fast probe tip separation Platen can be fine tuned up and down 25mm precisely with 1μm resolution	
Microscope	Travel range	X-Y axis : 2" * 2", Z axis : 50.8mm	
	Moving resolution	1μm	
	Switching object lens	Microscope tilting 30° manually by Lever	
	Magnification	20~4000X	
	Lens specification	Eyepiece: 10X ; Objective lens : 5X, 10X, 20X, 50X ,100X(option)	
Micropositioner specification	CCD pixels	50W (Analog) / 200W (Digital) / 500W (Digital)	
	X-Y-Z Travel range	12mm-12mm-12mm / 8mm-8mm-8mm	
	Mechanical resolution	10μm / 2μm / 0.7μm / 0.1μm	
	Current leakage accuracy	10pA / 100fA (with Shielding Box)	
Cable connectors	Banana head / Crocodile clip / Coaxial / Triaxial		
Application	Wafer test, Photoelectric device test, PCB / IC test, RF test, high voltage and high current measurement etc.		
Optional Accessories	Chuck quick roll out mechanism		
	Microscope tilt mechanism (Tilting 30° manually by Lever)		
	Microscope pneumatic lifting mechanism		
	Laser repair with cutting,ablation and welding function		
	Probe clamp		
	Dark field of microscope / DIC / Normarski test, Light intensity / wavelength test		
	IC hotspot detection by LC		
	High voltage and high current measurement		
	Hot chuck		
	High/Low temprature chuck		
	Shielding box		
	Special adapter		
	Vibration free table		
	Gold-plated chuck		
	Coaxial / Triaxial chuck		
	Chuck quick move-out and fine adjustment mechanism		
	Chuck rotation fine adjustment		
	Light intensity / wavelength testing		
	RF Testing		
Active probe			
Low current / Capacitance test			
Intergartion of intergral sphere			
Fixture for Fibre optic coupler test			
Fixture of Package IC test			
Fixture of PCB test			
Special Custom design			



Introduction

FA series probe bench is a measuring equipment specially designed for failure analysis laboratory. It has optical and laser characteristics, stable equipment structure, excellent system performance, ergonomic design, convenient operation, support multi-function upgrade, and rich and complete product functions.

Application Direction

Chip failure analysis at room temperature and high temperature, RF component failure analysis, MATERIAL/-component IV/CV characteristic test and failure analysis, chip internal circuit/electrode /PAD test, IC/ panel internal circuit modification/de-lamination

Product Feature

- Large handle drive, no clearance movement
- Ergonomic design, convenient and comfortable to operate
- Multi-band laser application, fast switching and accurate cutting
- Compatible with high power metallographic microscope for fine adjustment and movement
- No backtrip difference design, accurate positioning
- The air cooling structure is compact and requires no maintenance
- High precision system, laser machining accuracy up to 1*1um
- Leading internal anti - shock system device, more stable operation

Specification

Model	FA-8	FA-8-SC	
Dimension	L: 960mm*W: 850mm*H: 1500mm	L: 880mm*W: 860mm*H: 1550mm	
Weight (about)	260KG	280KG	
Electricity Demand	220VC, 50~60Hz		
Chuck	Size & Rotation angle	8", 360° Rotation	
	X-Y travel range	8" * 8"	
	Moving resolution	1μm	
	Sample fixed mode	Vacuum adsorption	Vacuum adsorption
	Temperature control range	-	- 80~200°C
	Quick pull out	-	yes
	Electrical design	Chuck Surface is Electrical Floating with Banana plug adapter, can be used as a backside electrode.	
Platen	Specification	U shape Platen, 10 micropositioners available	O shape Platen, 12 micropositioners available
	Travel & adjustment mode	Platen can be quickly lifted up and down 6mm with automatic locking function,Platen can be fine tuned up and down 25mm precisely with 1μm resolution	
Microscope	Travel range	X-Y: 2" * 2", Z: 50.8mm	X-Y: 1" * 1", Z: 50.8mm
	Resolution	1μm	
	Magnification	20 ~ 4000X	
	Operation of lens switching	Fast tilting	Pneumatic lifting
Laser	CCD pixels	50W (Analog) / 200W (Digital) / 500W (Digital)	
	Wavelength	Wavelength selectable: 1064/532/355/266nm	
	Output power	0~2.2mJ/pulse	
	Micromachining capability	Machinable material: Cr / Al / ITO / Ni / TFT / RGB / Poly Silicon / Mo / SiN / CF internal impurity etc.	
	Precision	Minimum Machinable size is 1*1μm (when using 100X lens)	
Micropositioner	Cooling mode	Air-cooled laser or Water cooled laser	
	X-Y-Z moving range	12mm-12mm-12mm / 8mm-8mm-8mm	
	Mechanical resolution	2μm / 0.7μm / 0.1μm	
	Current leakage accuracy	10pA / 100fA (with Shielding Box)	
Optional Accessories	Cable connectors	Banana head / Crocodile clip / Coaxial / Triaxial	
		Chuck fast pull-out mechanism	
		Hot spot detection by liquid crystal package	
		High voltage / high current test suite	
		Hot chuck	
		Shielding box	
		Special adapter	
		Vibration free table	
		Gold-plated chuck	
		Coaxial / Triaxial chuck	
		Chuck Z quickly lifting and lowering and fine adjustment selection	
		Light intensity / wavelength test	
		RF test accessories	
		Active probe	
		Low current / Capacitance test	
	Fixture for Fibre optic coupler test		
	Fixture of Packaged IC test accessory		
	Fixture of PCB test accessory		
	Special Custom design		



Introduction

C series probe stand has excellent mechanical system, stable structural performance, ergonomic design, easy operation, support multi-function upgrade, rich and comprehensive functions. The products are mainly used in integrated circuit, LED, LCD, solar cell, semiconductor industry manufacturing and research fields.

Application Direction

LD/LED/PD test, PCB/ package device test, IV/CV characteristic test of material/device, internal circuit/electrode /PAD test of chip over 0.2 micron, hf, RF test, etc

Product Feature

- Compact structure design greatly saves space
- Ergonomic design, convenient and comfortable to operate
- Compatible with high power metallographic microscope for fine adjustment and movement
- No backlash difference design, accurate positioning
- Precise screw drive structure, high precision motion system
- Large handle drive, no clearance movement
- Leading internal anti - shock system device, more stable operation
- Support multi-function upgrade, richer and more comprehensive functions

Model		SC-6	SC-8	SC-12
Dimension		L 860mm*W 850mm*H 700mm	L 880mm*W 860mm*H 750mm	L 1400mm*W 920mm*H 920mm
Weight (about)		150KG	170KG	250KG
Electricity Demand		220VC, 50~60Hz		
Chuck	Size & Rotation angle	6", 360° Rotation	8", 360° Rotation	12", 360° Rotation
	X-Y Moving range	6" * 6"	8" * 8"	12" * 12"
	Moving resolution	1μm		
	Sample exchange	Chuck quick move out mechanism for sample change		
	Sample fixed mode	Vacuum adsorption		
	Electrical design	Chuck Surface is Electrical Floating with Banana plug adapter, can be used as a backside electrode .		
Platen	O shape platen	8 micropositioners available	10 micropositioners available	12 micropositioners available
	Move range & adjustment	Platen can be quickly lifted up and down 6mm with automatic locking function Platen can be fine tuned up and down 25mm precisely with 1μm resolution		
Temperature specification	Temperature range	- 100 ~ 200°C	- 80 ~ 200°C	- 60 ~ 200°C
	Temperature precision	0.01°C resolution		
	Heating method	Low voltage DC(LVDC)		
	Minimum temperature control rate	± 0.1°C / hour		
	Refrigerant	Liquid nitrogen or Refrigeration compressor		
Microscope	Moving range	X-Y axis : 2" * 2", Z axis : 50.8mm		
	Switching lens mode	Microscope tilting 30° manually by Lever		
	Magnification	16~100X / 20~4000X		
	Lens specification	Eyepiece: 10X ; Objective lens : 5X, 10X, 20X, 50X, 100X(Option)		
Micropositioner	CCD pixels	50W (Analog) / 200W (Digital) / 500W (Digital)		
	X-Y-Z Travel range	12mm-12mm-12mm / 8mm-8mm-8mm		
	Mechanical resolution	10μm / 2μm / 0.7μm / 0.1μm		
	Current leakage accuracy	10pA / 100fA (with Shielding Box)		
Cable connectors		Banana head / Crocodile clip / Coaxial / Triaxial / SMA / K		
Application		IC/ LD / LED / PD test, PCB /Packaged IC test , RF test under High and low temperature		
Optional Accessories	Probe clamp			
	Dark field of microscope / DIC / Normarski Testing light intensity / wavelength testing			
	RF Testing			
	High voltage and high current test			
	Shielding box			
	Special adapter			
	Vibration free table			
	Gold-plated chuck			
	Coaxial / Triaxial chuck			
	Light intensity / Spectrum / Wavelength test			
	Active probe			
	Low current / Capacitance test			
	Intergation of intergral sphere			
	Fixture of Packaged IC test			
	Fixture of PCB test			
Special Custom design				



Introduction

SCG launched series is the first domestic company independent research and development of high and low temperature vacuum prober, the equipment by Harbin Institute of Technology in 2016 to participate in and China aerospace science and technology group, to build the "space environment on the ground simulation device" part of the core project design of the project, in turn, ultra high vacuum, automatic control, laser simulation plays a SEM-ISHARE unique technical advantages, is an innovative SEMISHARE technology accumulated for years.

Application Direction

Chip test, LD/LED/PD test, optical fiber spectrum characteristic test, MATERIAL/device IV/CV characteristic test, Hall test, electromagnetic transport characteristic test, high frequency characteristic test, etc

Product Feature

- Excellent mechanical system, stable, safe and reliable
- Support upgrade load magnetic field
- Design of radiation shield, better uniformity of sample temperature
- Probe heat sink design, more accurate positioning
- Ergonomic design, convenient and comfortable to operate
- Compatible with high power metallographic microscope for fine adjustment and movement
- Leading internal anti - shock system device, more stable operation
- Automatic refrigerant flow control, automatic accurate temperature control

Model	SCG-O-2	SCG-O-4	SCG-C-2	
Dimension	L: 900mm* W: 900mm* H: 530mm	L: 1100mm* W: 1100mm* H: 530mm	L: 1100mm* W: 1100mm* H: 1030mm	
Weight (about)	170KG	190KG	290KG	
Electricity Demand	AC220V, 50~60HZ			
Chuck	Size	2"	4"	2"
	Sample fixed mode	Fixed by vacuum type heat conduction silicone grease / Spring		
	Movement	Fixed		
	Ultimate vacuum in chamber	10 ⁻¹ -10 ⁻² torr (when using corresponding turbo pump)		
Microscope	Microscope X-Y travel range	2" * 2"	4" * 4"	2" * 2"
	Magnification	Zoom: 7:1, Resolution: 4μm (Max Magnification 216X) or can use Metallographic microscope (20X~1000X)		
	Optical windows size	2"	4"	2"
	CCD pixels	50W (Analog) / 200W (Digital) / 500W (Digital)		
Temperature specification	Refrigeration mode	Liquid nitrogen / Liquid helium Refrigeration compressor		Refrigeration compressor
	Control mode	Open cycle manual control / Automatic refrigerant control		Closed cycle automatic control
	Temperature control range	77K~450K / 4.2K~450K		4.2K~450K
	Temperature resolution	0.001K		
	Temperature stability	4.2K: ±0.2K		77K: ±0.1K
		373K: ±0.08K		473K: ±0.1K
		823K: ±0.2K(Optional)		973K: ±1.0K(Optional)
	RT to 8K cooling time	1 hour and 30mins		2 hours and 30mins
	8K to RT heating-up time	1 hour and 30mins		1 hour and 30mins
	Start from RT to	100°C	150°C	200°C
		30mins	50mins	80mins
		Heating method		
Sensor type			Silicon Diode	
Number of sensors	3, One on Sample chuck , One on Anti-radiation shield and One on Probe arm			
Power	50W / 100W / 500W / 1000W			
Micropositioner	Quantity	2pcs / 4pcs / 6pcs		
	Probe adjustment mode	Adjust manually out side the chamber through Vacuum bellows		
	Mechanical resolution	10μm / 2μm / 0.7μm		
	X-Y-Z Travel range	25mm-25mm-25mm		
	Current leakage accuracy	10pA / 100fA		
	Cable connectors	Triaxial / SMA / K / Optical fiber		
Optional Accessories	Vibration free table			
	Multistage compression refrigerator			
	Mechanical pump / Turbo pump station/ Ion pump			
	RF Testing			
	Chuck movable design			
	Electromagnet system / Superconducting magnet system			
	1Mpa high pressure test upgrade			
	Ultra high temperature upgrade			
	Ultra high vacuum chamber upgrade			
	Special Custom design			

Introduction

X series is a professional deal with all kinds of advanced chip performance test, comprehensive and efficient semi-automatic wafer prober, integrates the electrical, light wave, microwave, etc, to 60 °C ~ 300 °C high temperature KuanQu and testing precision, can match various test application environment, at the same time super efficient well test run of the system speed > 70 mm/s, effectively improve testing efficiency by more than 40%, for all kinds of wafers and provide excellent reliability test device.



Application Direction

All kinds of devices and Wafer, etc., conduct characteristic analysis of I-V, C-V, optical signal, RF, 1/ F noise, RF test, high-power Wafer test, etc

Product Feature

- Super efficient and excellent test running speed >70mm/s, test efficiency increased by more than 40%
- Advanced 3 times patented optical microscopy system, high precision measurement and dynamic monitoring, more convenient operation of the point needle
- -60°C~300°C ultra-high temperature wide area
- Software automation test, precise calibration of mechanical accuracy
- Integrated control system, instrument fast and convenient access test
- Excellent test accuracy, operating efficiency and system stability
- Support automatic expansion and upgrade

Model	SX-6	SX-8	SX-12	
Dimension (W*L*H)	1000mm * 1400mm * 1400mm	1100mm * 1500mm * 1400mm	1200mm * 1600mm * 1400mm	
Weight(about)	1000KG	1150KG	1350KG	
Electricity Demand	AC220V, 50~60Hz			
CDA demand	0.4~0.8Mpa			
Chuck	Size	6"	8"	12"
	X-Y Travel range	200mm * 300mm	250mm * 400mm	350mm * 500mm
	X-Y Resolution	0.1μm		
	X-Y Repeatability	≤±1μm		
	X-Y Move speed	≥70mm/sec		
	Z Travel range	20mm		
	Z Resolution	0.1μm		
	Z Repeatability	≤±1μm		
	Z Move speed	≥20mm/sec		
	Theta Travel range	±10°	Theta resolution	0.0001°
Sample Fixed mode	Vacuum adsorption, Independent control			
Sample Exchange	Chuck quickly roll out for wafer fast exchange.			
Structure	Triaxial ultra-low noise design, Gold plating, Chuck surface is electrical floating			
Platen	Specifications O shape platen, 12 micropositioners available (When the octagon box is not installed)			

Specification

Model	SX-6	SX-8	SX-12
Microscope X-Y-Z	X-Y Travel range	2" * 2"	
	X-Y Resolution	0.1μm	
	X-Y Repeatability	±2μm	
	X-Y Move speed	≥10mm/sec	
	Z Travel range	5"	
	Z Resolution	0.1μm	
	Z Repeatability	≤±1μm	
Microscope	Z Move speed	≥10mm/sec	
	Variable magnification microscope	Zoom:15: 1, Three gears and could display low(0.6X) and high(2.5X or 9X) magnification in the same time	
Microscope	Camera	Double cameras (200W or 500W Industrial digital camera)	
	Mechanical resolution	10μm / 2μm / 0.7μm	
Micropositioner Specification	X-Y-Z Move range	13mm-13mm-13mm	
	Current leakage	10pA / 100fA / 10fA	
	Connector type	Banana plug adapter/Coaxial /Three-axis/ SMA /SHV etc.	
	Base	Magnetic/vacuum adsorption base	
Temperature specification	Temperature range	- 60°C-200°C (Standard), other Temperature range upon request	
	Temperature stability	±0.1°C	
	Temperature resolution	0.01°C	
	Heating time(12"chuck)	- 60°C to +25°C ≤ 10min +25°C to +200°C ≤10 min	
	Cooling time(12"chuck)	+ 200°C to +25°C ≤ 12min + 25°C to -60°C ≤ 25min	
	Noise	<60dB	
	Heating method	Low Voltage DC(LVDC)/PID control	
	Refrigeration method	Refrigeration compressor	
Anti-Vibration	Anti-Vibration method	Air film anti-vibration system, Ensure nonvisible vibration in the screen when the microscope zooming in at 2000X	
	Vibration suppression	In the process of chuck movement, it can be extremely fast to ensure the stability of the chuck ≤1S, Improve the test efficiency.	
system mask	EMI shielding	> 20 dB (typical) @ 1 kHz to 20GHz	
	Light attenuation	≥ 120 dB	
	Spectral noise floor	≤ -150 dBVrms/rHz	
	System AC noise	≤15 mVp-p (≤ 1 GHz)	
Software function			
Automatic wafer alignment		Automatic wafer height measurement and compensation	
Automatic Die size measurement and auto mapping		Support Z, N shape test	
Wafer map edit arbitrary		One touch automatic RF calibrate and probe tips cleaning	
Demarcate difference data with Ink mark		Separation of OS and application software, can be upgraded independently.	
Real-time test results display		Robust data storage and processing capabilities	
Easy data management of the instrument input/output		Automatic data and curves storage and remote access	
The test results can be divided into different bin values		Communication interface: R232/485/TCP/IP/GPIB	
Multi tester fast integration, support both single Die testing and continuous testing			



Introduction

SA series is SEMISHARE years carefully developed a production automatic prober, the probe station has high testing precision and super fast test speed, with automatic up-down material, automatic wafer alignment, automatic wafer center, find the function such as automatic testing diesize, has the identification function of wafer ID at the same time, can be a single point test can also be continuous testing, test software feature-rich, heavily for the enterprise to gain test speed, greatly improving the productivity and efficiency.

Application Direction

Wafer testing, all kinds of devices, Wafer, etc., conduct i-V, C-V, optical signal, RF, 1/ F noise and other characteristics analysis, RF testing, etc

Product Feature

- Super high test precision and test speed, greatly improve productivity benefits
- Fully automated system running, fast safe and reliable test
- Support single point testing and continuous testing
- Integrated control system, fast access to instrument testing
- CHUCK efficient test system, running speed exceeding 300mm/s
- Rich software automation test, precise mechanical precision calibration
- Automatic wafer thickness measurement and ID reading card can be upgraded
- Leading internal anti - shock system device, more stable operation

Model	SA-6 / SA-8 / SA-12
Dimension	L 1500mm* W 1700mm*H 1100
Weight (about)	1700kg
Electricity Demand	220VAC±10V ,50Hz/2.2KW
Wafer diameter that can be measured	6",8", 12"
Wafer thickness	300≤T≤1000μm (standard) T≤300(Thin wafer type)
Wafer thickness deviation	± 50μm
Index time	280ms(standard speed) die size 10mm, include Z up/down 0.2mm)
Chuck with 5-axis moving mechanism	(X/Y/Z/theta/F)
X-Y Travel range	380mm, maximum speed 300mm/s, Resolution ratio 0.1μm
XY Mechanical positioning accuracy	±2μm
XY Maximum speed	300mm/s
Z Platform flatness	≤5 μm
Z Travel range	37mm, Probe separation height 0.3mm,Speed 30ms / 0.3mm
Z Moving resolution	0.1μm
Z Repeatability	± 1μm
Z Precision	± 2μm
Theta / Resolution	± 5°/0.0001°
Grating ruler	0.1μm
Pre-alignment method	Optical principle detection, ±1°flat edge or notch positioning accuracy
Wafer loader	Ceramic Wafer loader, cassette*1
Wafer loading unit	lifting unit*1, pre-alignment unit*1,wafer transmission subunit*1, and interfaces
Automatic alignment system	Automatic horizontal scanning, automatic first test point location, automatic wafer center location
Automatic system for wafer exchange	Safety protection, wafer positioning edge pre-alignment
Matching unit	Pattern matching
Displacement sensor	Electrostatic capacitance sensor,resolution 2μm
Lighting	Coaxial halogen lamp lighting or LED light source
PC configuration	I5CPU,4G memory,128G Solid state hard drive, etc.
Alarm (tricolour lamp)	Red, Yellow, Green
Operating site requirements	2200mm * 2200mm
Operation system	Windows operation interface, English/Chinese language
Mark	Quantity : 1pcs
Marking mode	Up and down, the mark can be marked in real time or offline, the marking time is 15 ~ 300ms, ink mark/laser mark
Cassette that can be used	FOUP 12"8"/6"(13 or 25pcs), light FOUP 12"8"/6" (13 or 25pcs), open cassette 12"/8"/6"
Optional Accessories	Automatic probe needle cleaning table
	RF high frequency test
	VCR for Wafer ID reading
	Matching the automatic wafer AGV or OHT design
	High power wafer test



Introduction

TEG series panel laser probe platform is mainly used to analyze THE TEG circuit of LCD screen, test electrical parameters, and realize a fully automated testing application equipment. This product can quickly and accurately analyze and judge the performance of the product, and further repair the defects of the product, greatly improving the yield and economic benefits of the enterprise production.

Application Direction

TEG Electrical testing of OLED/TFT-LCD panels

Product Feature

- The fastest test speed in the industry greatly improves the test efficiency
- Leading internal anti - shock system device, more stable operation
- 0.1um high precision linear motor platform
- Electrical shielding system, shielding light and electromagnetic interference
- Super high test precision, accurate measurement is stable and reliable
- Compatible with high power metallographic microscope, automatic focusing
- Automatic needle clearing, automatic needle measuring
- Automatic test, data automatically read

Model		TEG prober-G6	TEG prober-G8.5
Dimension		W: 2850mm * L: 2500mm * H: 2500mm	W: 4000mm * L: 3500mm * H: 2500mm
Weight about		9700KG	14200KG
Electricity Demand		380V, 50Hz, 3Phase, approx. 50A Max	
Panel size		L * W ≤ 1500 * 1850mm, Thickness ≤ 3mm	L * W ≤ 2500 * 2200mm, Thickness ≤ 3mm
Platform function	Gantry structure	Bridge disgn, can choose double gantry	
	X-Y-Z travel range	1850*1500 *58mm(X-Y-Z)	2500 *2200*58mm(X-Y-Z)
	X-Y velocity	0~600mm/s adjustable	
	X-Y resolution	0.1µm	
	X-Y Repeatability	±1µm	
	X-Y axis drive	Linear motion + Grating ruler	
	Z velocity	0~10mm/s adjustable	
	Z resolution	0.25µm	
	Z Repeatability	±1µm	
	Z axis drive	Servo motor + Grating ruler	
	Z axis protection	Motor self-locking + Mechanical limit protection	
	Platform flatness	±50µm	
	Platform coating	Antistatic coating	
	Platform high/low temperature	Temp Chuck or Thermal Stream (-55~200°C)	
Microscope	Optical circuit system ratio	5X, 10X, 20X, 50X Objects	
	Magnification range	50X ~ 500X	
	Focus	Auto focus	
	CCD pixel	200W / 500W	
	Light source	TOP/Bottom coaxial LED light	
		Light adjustable independently	
Laser	Laser system	Laser cutting system (2.2mj / Pluse Maximum@50Hz) 0-100%	
		1064nm, 532nm, 355nm	
	Spot scale	1.0um @100X object 2.0um @50X object	
	Work pattern	One Shot / Burst / Continue	
	Shape	Adjustable rectangle	
Control	mode	Automatic test, automatic data load and communication Semi-automatic/full-automatic test	
	Sample Exchange	Robot	
	CIM system	Yes	
	Anti-vibration	Vibration free table installed	
	Industry PC	23-inch display & computer: i7processor,2 blocks 1TB hard disk(one of which is a backup hard disk), 8G memory, 1G Independent video card, DVD-ROM	
	communication interface	RS232 / EtherCAT / GPIB etc.	
	Security	Frame covered , and the operator operates outside	
		EMO	
		Limit sensor ,Motion platform and Laser system limit interlock	
		Alarm	
Tester	Probe card	Two sets, can test two sets of TEG at the same time	
		Pitch and layout: Customizing	
		Probe material: Tungsten or Beryllium copper	
	Probe and TEG alignment	Coordinate positioning	
		Pattern matching	
	Probe and TEG Contact mode	Automatic contact Mechanical limit , edge sensor and software protection, The limit height can be set according to the thickness of the panel, and the OD value can be set.	
	Probe rotation stroke	±90°	
	Probe rotation accuracy	0.01°	
	Potation repeatability	0.03°	
	Probe cleaning	Automatic cleaning	
Electrical test after cleaning			
Prober current leakage	Within 100fA (Test standard: -5v ~ +5v, without blowing N2 and floating).		
Test system	Two sets		
	Semiconductor parameter testing system, 2 * HRSMU + 4 * MPSMU + CV test+High precision matrix switch etc.		
TFT test project	Ion		
	Ioff		
	Vth		
	Mobility		
TFT test project	Swing		
	Rs		
	Rc		
Maximum test voltage	±200V		
Maximum test current	±1A		
Current test resolution	1fA (No preamplifier)		
Voltage test resolution	0.5uV		
Cv test frequency range	1kHz ~ 5MHz		
	Grounding unit accommodation capacity	4.2A GNDU	



02

Laser Repair System

[Flex Scan Series / Laser Panel Window Repair System](#)

[LCD&OLED Series / Laser Repair System](#)

[LCVD Series / Laser Repair System](#)

Introduction

FlexScan is a laser panel repair device designed for highlights, anomalies and defects in display panel processing. With the leading machine vision system of SEMISHARE as the core, the equipment can provide high-precision and low-cost solutions for the defects of LCD finished products and semi-finished products, which greatly improves the yield and economic benefits of the enterprise's technological process.

Application Direction

Tft-lcd panel bright spot repair, OLED panel bright spot repair

Product Feature

- Laser system visual operation, greatly improve the efficiency of repair
- Repair shape can be edited, can be multi-station design
- Linear motor structure, 1um laser precision, high speed mute
- Leading internal anti-shock system device, more stable operation
- High power optical image recognition, automatic calibration focus
- Local darkening can be achieved
- Automatic AOI positioning, automatic upper and lower slice
- Rich software testing function, high precision calibration of mechanical system



Model	Flex-85	
Dimension	W 3000mm*L 2500mm*H 2500mm	
Weight	7500KG	
Electricity Demand	380V, 50Hz, 3Phase, approx. 50A Max	
Repair ability	Sample size	3~85 inch
	Repairable range	Any position in the panel
	Repair time	120s or so per pixel (pixel in size 200μm*100μm)
	Repairable product type	Cell (OLED, IPS, ON-CELL / IN-CELL TFT panel etc.), Module (with/without polarizer)
	Shading performance	Not visible when module backlight turn on
Gantry	X-Y-Z travel range	2000 * 1200 * 50mm
	Moving resolution	0.1μm
	X-Y velocity	0~400mm/s
	Z velocity	0~2mm/s Adjustable
	Location	AOI automatic defect location
Microscope	Optical circuit system ratio	50X~1000X, 5X, 10X, 20X, 50X, 100X Objects
	Objective switching speed	0.2~0.7s
	Focus	Laser auto focusing
	Optical resolution	0.7μm
	Camera	200W / 500W Pixel industrial camera
Laser	Laser system	Ultra fast laser
	Energy control	0~1000 steps, 0~100%
	Laser wavelength	1064nm, 532nm, 355nm
	Pulse width	500fs
	Spot size	0.8~1.5μm @ 100X object
		1.0~3.0μm @ 50X object
	Laser lifetime	>10years, Maintenance interval > 20000 hours
	Energy uniformity of scanning surface	Better than 5% IR
	Repair method	Scanning
	Scanning shape	Customer defined
	Recipes	Customer defined and stored locally
	Control	Mode
Semi-automatic/full-automatic repair		
Sample Exchange		Multistation and Automatic exchange
CIM system		Yes
Anti-vibration		Vibration free table installed
Industrial PC		23-inch display & computer: i7 processor, 2 blocks 1TB hard disk (one of which is a backup hard disk), 8G memory, 1G Independent video card, DVD-ROM
Communication interface		RS232 / EtherCAT / GPIB etc.
Security		Frame covered , and the operator operates outside .
		EMO
	Limit sensor, Motion platform and Laser system limit interlock	
	Alarm	

Introduction

LCD series laser repair equipment is a kind of repair equipment to repair the defects and defects in the production process of display screen, so as to improve the yield of the process. With the leading machine vision system of SEMIS-HARE as the core, the equipment can provide high-precision and low-cost solutions for the defects of LCD finished products and semi-finished products, so as to improve the business efficiency to a greater extent.

Application Direction

OLED/LCD panel within 20", 55", and 70" highlights and abnormal repair

Product Feature

- High power optical image recognition, automatic calibration focus
- Laser system visual operation, greatly improve the efficiency of repair
- Linear motor structure, 1um laser precision, high speed mute
- Electrical shielding system, shielding light and electromagnetic interference
- Rich software testing function, high precision calibration of mechanical system
- Minimum machining accuracy up to 1*1um
- Leading internal anti - shock system device, more stable operation
- Can be upgraded for sample testing up to 120 inches



Model		LCD-70	LCD-55	LCD-20
Dimension		L2000mm*W1500mm*H2000mm	L 1500mm*W 1300mm*H 1500mm	L 1200mm*W 800mm*H 1500mm
Weight (about)		2500KG	1200KG	1200KG
Electricity Demand		220V, 50-60Hz		
Gantry	X-Y move range	1600mm * 1000mm	650mm * 550mm	fixed
	Resolution	1um	1um	1um
	Sample platform	The sample platform is Fixed in the Gantry design		X-Y travel range 8" * 8"
	Light source	Top light and bottom light		
Microscope	Travel range	1600mm * 1000mm * 50mm	650mm * 550mm * 50mm	z axis travel : 50mm
	CCD pixel	50W (Analog) / 200W (Digital) / 500W (Digital)		
	Eyepiece	10X Eyepiece		
	Objective lens	Configuration objective: 5X, 10X, 20X, 50X,100X (optional)		
	Objective changer	Motorized turret nosepiece unit	Manual/Motorized turret nosepiece unit	Manual nosepiece unit
	Focus	Motor-driven	Maunal or	Motor-driven Manual
	Wavelength	Wavelength selectable: 1064 / 532 / 355 / 266nm		
Laser	Energy	Output power : 2.2mJ / pulse		
	Machining capability	Machinable material: CR / Al / ITO / NI / TFT / RGB / Poly Silicon / MO / SIN / CF internal impurities, etc.		
	Machining accuracy	Minimum machinable accuracy 1*1μm (when configuring 100X lens)		
	Cooling-down method	Air-cooled laser or Water-cooled laser		
Control system	Principle	The precision numerical control system is using high-end motion control card, servo drive system to realize the arbitrary movement curve in x-y-z.		High precision lead screw drive, 1 micron resolution
	Speed	The speed is adjustable in 4 gears , each speed can be defined , the lowest speed is 1μm, the maximum speed is not lower than 20cm/s		Manual control
	System	The software system can realize light source control, objective lens switch, focusing, platform control, image adjustment,laser size,energy,mode control etc. Can realize movement by click in image,custum defined tracking, coordinate storage, fixed distance movement etc.	PLC, servo motor control	Manual control
Anti-vibration	Vibration free table installed			
Optional Accessories	control box with joystick			
	Special LCD laser repair lens			
	Special customization			



Introduction

LCVD laser repair equipment is an automatic repair equipment designed for the process defects and defects of LCD display screen. With the leading machine vision system of SEMISHARE as the core, the equipment can provide high-precision and low-cost solutions for the defects of LCD finished products and semi-finished products, so as to improve the business efficiency to a greater extent.

Application Direction

Tft-lcd and OLED Array Panel circuit open and short circuit repair, Mask defect repair

Product Feature

- High power optical image recognition, automatic calibration focus
- Laser system visual operation, greatly improve the efficiency of repair
- Linear motor structure, 1um laser precision, high speed mute
- Automatic AOI positioning, automatic upper and lower slice
- Rich software testing function, high precision calibration of mechanical system
- Repair shape can be edited, can be multi-station design
- Leading internal anti-shock system device, more stable operation
- Electrical shielding system, shielding light and electromagnetic interference

Specification

Model		LCVD-G6	LCVD-G8.5
Dimension		W 2850mm*L 2500mm*H 2500mm	W 4000mm*L 3500mm*H 2500mm
Weight (about)		7500KG	10500KG
Electricity Demand		380V, 50Hz, 3Phase, approx. 40A Max.	380V, 50Hz, 3Phase, approx. 60A Max.
Repair capacity	Repairable panel size	L * W ≤ 1500mm * 1850mm, Thickness ≤ 3mm	L * W ≤ 2500mm * 2200mm, Thickness ≤ 3mm
	CVD material	W, Cr, MO, Al	
	Line deposition velocity	5~10μm/s (Thickness 5000Å)	
	Single defect repair time	After positioning, the time of repairing a single defect is about 5 seconds.	
	Recipe	Software edit and stroed locally	
	Cutting width	1μm~50μm adjustable	
	CVD width	2μm~30μm adjustable	
	CVD edge accuracy	±0.5μm	
	CVD thickness	2000Å ~15000Å Adjustable	
	Resistance of deposition line	<65Ω (width: 5μm, Length : 50μm, Thickness : 5000Å)	
CVD stability	Cleaning times by cleaning machine	>10 times	
	Strong acid-base test	> 1H	
	Brush wipe	> 1H	
	Ultrasonic	1Mhz > 1H	
Gantry	X-Y-Z travel range	LCVD-G6 1500*1850*58mm LCVD-G8.5 2500*2200*58mm	
	X-Y velocity	0~400mm/s adjustable	
	X-Y resolution (minimum movement)	0.1μm	
	Z velocity	0~2mm/s Adjustable	
	Z resolution (minimum movement)	0.1μm	
	Repeatability accuracy	±5μm	
Microscope	Repair alignment accuracy	0.1μm	
	Magnification	50X~ 1000X	
	Objectives	5X,10X, 20X, 50X NIR, 50X UV, 50X NUV Objects	
	Optical resolution	0.7μm	
	Objective switching speed	0.2~0.7s	
	Switching lens deviation	Less than 3μm	
	Focus	Laser auto focus	
Cemera	2 million pixels		
Lighting	TOP/Bottom coaxial LED light, Light adjustable independently		
Laser	Laser system	DPSS Laser cutting system CW Laser deposition system	
	Energy regulation accuracy	0-1000 steps 0-100%	
	Slit size	0~2.5mm	
	Slit accuracy	1μm	
	Laser energy calibration mode	Automatic calibration	
	Calibration time cost	3mins	
	Laser energy calibration accuracy	Better than 2%	
	Wavelength	Cut Laser: IR 1064nm, GRN 532nm, UV 266nm CVD CW laser: NUV 351nm	
	Pulse width	< 12 ns	
	Spot size	2.0~ @50X object 1064nm (test on standard mask)	
Control	Scanning energy uniformity	Better than 5% @IR	
	Laser lifetime	Cut Laser: 1 billion excitation CVD CW laser: 8000 hours	
	Repair mode	Scan mode and Step mode	
	Scanning path	Arbitrary path definition	
Working mode	Working mode	Automatic repair, automatic data load, on-line communication Manual or automatic repair	
	Panel load	Robot	
	CIM system	Yes	
	Anti-vibration	Vibration free table installed	
	Industry PC	23-inch display & computer: i7 processor, 2 blocks 1TB hard disk (one of which is a backup hard disk), 8G memory, 1G Independent video card, DVD-ROM	
	Communication interface	RS232 / EtherCAT / GPIB etc.	
Security	Security	Frame covered , and the operator operates outside . EMO Limit sensor, Motion platform and Laser system limit interlock Alarm	

03

Accessories

[Micropositioner](#)

[Probe Holder](#)

[Probe](#)

[RF Probe](#)

[Triaxial Adapter/Cable](#)

[Heating Platform](#)



SS-700

Submicron circuit/RF test pin holder

Specification: X-Y-Z direction stroke: 8 X 8 X 8mm;Mode of motion: Linear motion;Precision of lead screw: 700Thread/ Inch;Movement accuracy: 0.1 micron

Size: 148mm long *120mm wide *140mm high;Weighs 1500 grams

Features: Sub-micron process IC circuit testing;Linear, recoilless movement;Can be used with coaxial/triaxial probe fixture;The fixture can be tilted at a range of 30 degrees;Tungsten probes can be used;Rf pins can be configured in four directions east/south/west/North;Rf test capability: DC to 40GHz~120GHz;Calibration tablets and calibration software can be used together;45 degree connection between probe interface and cable, no L-type adaptor required;The probe can be removed for maintenance;Fixed device with RF test line



SS-100

Submicron circuit/RF test pin holder

Specification: X-Y-Z direction stroke: 12x12x12mm;Mode of motion: Linear motion;Precision of lead screw: 40Thread/Inch;Movement accuracy: 0.7 micron

Size: 115mm long *100mm wide *112mm high;It weighs about 1000 grams

Features: Sub-micron process IC circuit testing;Linear, recoilless movement;Can be used with coaxial/triaxial probe fixture;The fixture can be tilted at a range of 30 degrees;Tungsten probes can be used;Rf pins can be configured in four directions east/south/west/North;Rf test capability: DC to 40GHz~120GHz;Calibration tablets and calibration software can be used together;45 degree connection between probe interface and cable, no L-type adaptor required;The probe can be removed for maintenance;Fixed device with RF test line



SS-40-T

Circuit/RF test pins

Specification: X-Y-Z direction stroke /12x12x 12mm;Mode of motion: Linear motion;Precision of lead screw: 40 Thread/Inch: moving precision: 2 microns

Size: 64mm long *47mm wide *66mm high;It weighs about 200 grams

Features: Linear motion;l/O Pad spot measurement;Circuit point measurement;Radio frequency testing;Small volume;Can cooperate with coaxial use



SS-40

I/O Pad/Electro-Optics Test needle holder

Specification: X-Y-Z direction stroke: 12x12x12mm;Mode of motion: Linear motion;Precision of lead screw: 40 Thread/Inch: Moving precision: 10 microns

Size: 64mm long *47mm*55mm high;It weighs about 175 grams

Features: Affordable;Linear movement;l/O Pad dot measurement;Photoelectric device dot measurement;Small volume;Can be used with coaxial/triaxial probe fixture

The probe jig is a mechanical device attached to the pin seat to connect the probe and the signal cable for fixing the probe and extracting the signal.The probe holder moves linearly in the x-Y-Z direction as the pin holder is adjusted by the X-Y-Z knob.

Selection Steps:

Please first select the model of pin seat according to the size of the test electrode, and then determine the use of ordinary cable, coaxial cable or three-axis cable at the back end of the probe fixture according to the telecom test accuracy.Pay attention to the mechanical accuracy of the pin.

Coaxial Tip Holder

The back end of the Coaxial tip holder is connected with a 1.2m coaxial cable with BNC(coaxial male) interface.Telecommunications test accuracy is better than 10 pA when using standard shielding boxes.



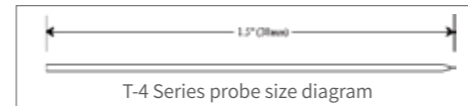
Triaxial Tip Holder

Triaxial tip holder: the back end of triaxial probe jig is connected with a 1.2m long triaxial cable with triaxial (male) interface.Telecommunications test accuracy is better than 100fA when using standard shielding boxes.



T-4 Series Soft Needles

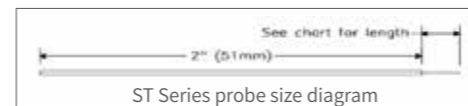
- The T-4 series of soft needles are more widely used in the circuit, electrode, or FIB (focusing ion beam) of the mini electrode.
- The structure of the T-4 series of soft needles is welded to the tin - plated copper rod with different diameter tungsten needle.
- Of which T-4-10 and T-4-22 is customer feedback is have an advantage in the two models, because its needle diameter is small, has a good bending elasticity, can greatly reduce the damage to the chip electrode, under the partial vibration environment can ensure the good contact and electrode.
- T-4 soft needles in a sensitive nodes use is not recommended, because produce capacitive load problem, in this environment, it is recommended to use high impedance Picoprobes series probe.



Model	Tungsten Needle Diameter	Tip Diameter	The Length
T-4-5	5 Micron	<0.2Micron	0.13" (3.3mm)
T-4-10	10Micron	<0.2Micron	0.13" (3.3mm)
T-4-22	22Micron	<0.2Micron	0.20" (5.1mm)
T-4-35	35Micron	<4.0Micron	0.20" (5.1mm)
T-4-60	60Micron	<6.0Micron	0.20" (5.1mm)
T-4-125	125Micron	<10.0Micron	0.20" (5.1mm)

ST Series Hard Needle

- ST series hard needle is 0.020 inch(0.51mm) diameter tungsten needle bar through precision electrochemical processing to become different needle point diameter, length 1.5inch(38.1mm) probe. This probe is used with most of the chip electrodes and line points.
- ST series hard needles can be used with scratches or puncture on the surface passivation layer of the chip. The probe can choose nickel plating on the surface, and "NP" is added if the nickel plating is selected.



Model	Needle Bar Diameter	Tip Diameter
ST-20-0.5	0.020" (0.51mm)	<1 Micron
ST-20-1.0	0.020" (0.51mm)	<2.0Micron
ST-20-2.0	0.020" (0.51mm)	<4.0Micron
ST-20-5.0	0.020" (0.51mm)	<10.0Micron
ST-20-10.0	0.020" (0.51mm)	<20.0Micron

Picoprobe® High Impedance Active Probe:

Application Direction: Small Signal Capacitance Characteristic Test

1. Model 7 and Model 7A(dc to 500 Mhz, 50 ohm)
2. Model 12C (dc to 500 Mhz, 1 Megohm/0.1pF)
3. Model 34A(dc to 3.0 GHz, 10 Megohm/0.1pF)
4. Model 35(dc to 26.0 GHz, 1.25 Megohm/0.05pF)
5. Model 18C and Model 19C (dc to 350 Mhz, 10 femtoamps/0.02pF)
6. Model 28 and Model 29(dc to 1 Ghz, 10 femtoamps/0.04pF)



Microwave Test:

Application Direction: High Frequency Characteristic Test

7. Model 10 (dc to 11 GHz)
8. Model 40A (dc to 40 GHz / 2.9mm K connector input) available with nickel alloy contacts for probing aluminum pads
9. Dual / Differential Microwave Probe (two microwave probes on one positioner - 40A, 50A, 67A, or 110H)
10. Model 40M (ultra low loss - dc to 40 GHz)
11. Model 50A (dc to 50 GHz / 2.4 mm connector input)
12. Model 67A (dc to 67 GHz / 1.85 mm V connector input)
13. Model 110H (dc to 110 GHz / 1.0 mm connector input)
14. Integrated Balun Probes
15. Multi-Contact Wedge (combines multiple RF and DC contacts - dc to 40, 50, 67 or 110 GHz)
16. Probe Cards(surrounds a circuit with high-density RF and DC contacts - dc to 40, 50, 67 or 110 GHz)
17. Model 50 (33 - 50 GHz / WR-22 waveguide input)
18. Model 75 (50 to 75 GHz / WR-15 waveguide input)
19. Model 90 (60 to 90 GHz / WR-12 waveguide input)
20. Model 120 (75 to 120 GHz / WR-10 waveguide input)
21. Model 140(90 to 140 GHz / WR-8 waveguide input)
22. Model 170 (110 to 170 GHz / WR-6 waveguide input)
23. Model 220 (140 to 220 GHz / WR-5 waveguide input)
24. Model 325 (220 to 325 GHz / WR-3 waveguide input)
25. Calibration Substrates (for probe tip calibration - available in 9 standard models)
26. Differential Calibration Substrates(for two, three or four port probe tip calibrations)

DC Probe:

Application Direction: DC Testing

27. T-4 Series Tungsten Probe Tips(A small diameter Tungsten wire attached to a larger wire body)
28. ST-Series Solid Tungsten Probe Tips (A large diameter solid Tungsten shaft precision tapered to a durable point)



Triaxial Adapter

RF Adapter

- SMA,N,7mm,3.5 , 2.9 ,2.4,1.85

Model	Connection mode of electrical shielding	The shield is suspended
Triaxial (male) to coaxial (female)	The inner shielding layer of the three axes is connected to the coaxial shielding layer	Triaxial outer shielding layer
Triaxial (male) to coaxial (female)	The outer shielding layer of the three axes is connected to the coaxial shielding layer	Triaxial inner shielding layer
Triaxial (male) to coaxial (female)	The inner and outer shielding layers of the three axes are connected to the coaxial shielding layer	
Triaxial (female) to coaxial (male)	The inner shielding layer of the three axes is connected to the coaxial shielding layer	Triaxial outer shielding layer
Triaxial (female) to coaxial (male)	The outer shielding layer of the three axes is connected to the coaxial shielding layer	Triaxial inner shielding layer
Triaxial (female) to coaxial (male)	The inner and outer shielding layers of the three axes are connected to the coaxial shielding layer	
Triaxial (female) to coaxial (female)	The inner shielding layer of the three axes is connected to the coaxial shielding layer	Triaxial outer shielding layer
Triaxial (female) to coaxial (female)	The outer shielding layer of the three axes is connected to the coaxial shielding layer	Triaxial inner shielding layer
Triaxial (female) to Triaxial (female)		
coaxial (female) to coaxial (female)		
T type triaxial adapter male/female/female		
T type coaxial adapter male/female/female		

Cable

RF Cabel

- Cable with K male/female connector, 12",24",36",48",60" long
- Cable with 2.4 male/female couplings, 12",24",36",48",60" long

Model	One End	On The Other Side	Connect The Middle Cable
Three axis cable 1 m /2 m /3 m /4 m	Triaxial (male)	Triaxial (male)	
Three axis cable 1 m /2 m /3 m /4 m	Triaxial (male)	Triaxial (male)	AC Red +10cm Cable
			AC Black +10cm Cable
			AC Green +10cm Cable
Three axis cable 1 m /2 m /3 m /4 m	Triaxial (male)		AC Red +10cm Cable
			AC Black +10cm Cable
			AC Green +10cm Cable
Three axis cable 1 m /2 m /3 m /4 m	Triaxial (male)		AC Red +10cm Cable
			AC Black +10cm Cable
			AC Green +10cm Cable
Three axis cable 1 m /2 m /3 m /4 m	Triaxial (male)		Banana Red +10cm Cable
			Banana Black +10cm Cable
			Banana Green +10cm Cable

Specification	
Vacuum adsorption stage dimensions	4, 6, 8,12 inches in diameter,1 inch thick
Chuck smoothness	±10 micron
Temperature control range	Room temperature to 300 degrees Celsius
Teperature control precision	0.1°C
Temperature stability	±0.1°C
The heating time starts from 25 °C	100 °C 150 °C 200 °C 300 °C
(4 inch Chuck in minutes and seconds)	1:00 2:30 3:00 4:30
Power	DC
Material	Stainless steel
Demand	
Power Supply	220 VAC, 60Hz
Power Consumption	4inch chuck 700W
Temperature control range	6inch chuck 1000W
Teperature control precision	8inch chuck 1500 W
Temperature stability	-250 mmHg, 7 liter/min
The heating time starts from 25 °C	20 Liter/Min
Size	
The controller is 350mm long x 300mm wide x 150mm high	Weight 20 Kg
Accessory	
High temperature accessories, can be heated to 300 °C, 400 °C, 500 °C, 600 °C, 700 °C	Cryogenic fittings can be cooled to 5 °C, -50 °C, -65 °C, or cryogenic to -196 °C
For other brand probe station installation interface	Rectangular chuck
Higher temperature control accuracy	Higher temperature uniformity
Faster heating accessories	Water cold box
Coaxial/triaxial chucks for lower current testing	Matching vacuum chamber fittings
Match shielded cavity fitting	Porous adsorption mode
The gilded chuck	Nickel plated chuck

Product Feature

- Low noise, low voltage DC drive
- The isolation suite implements PA level telecommunications test accuracy
- Double water circulation isolates water circulation and protects chuck base
- Can be installed on most of the probe tables
- Easy to load and unload





04

Software

Hall Effect Test System

Introduction

Hall effect test system is integrated Keithley2400/2600 series precision source and Semisharepolaris high and low temperature platform, using van der pol rule design, applied to the high precision of measuring carrier type of semiconductor material type (P/N), carrier concentration, mobility, and the parameters such as resistivity, hall coefficient, can be applied to Si, SiGe, SiC, GaAs, InGaAs, InP, GaN semiconductor materials, etc.

Application Direction

Windows 98 / ME / 2000 / NT/XP for Si, SiGe, SiC, ZnO, GaAs, InGaAs, InP, GaN, ITO and all semiconductor thin films (P and N types)

Product Feature

- Industry leading Keithley testing platform
- Ultra-high precision source table for accurate measurement
- Modular design, stable performance and easy maintenance
- Rich software functions, convenient and flexible operation
- Visual interface, clear data analysis
- High and low temperature variable temperature environment, effective implementation of reliability testing



Specification

Brief introduction	This system is integrated with Keithley 2400 / 2600 series high precision source meter and Semishare Polaris high and low temperature platform. It is designed by using The Van Der Pauw Law for high-precision measurement of the carrier types of semiconductor materials (P type / N type), Carrier concentration, Mobility ratio, Resistivity, Hall coefficient and other parameters test, Can be applied to various materials such as Si, SiGe, SiC, GaAs, InGaAs, InP, GaN etc.	
Software operating system	Under the environment of Windows 98 / ME / 2000 / NT / Xp	
	Effective current output range	6nA~100mA
	Effective voltage measurement range	-5~5V
	Carrier concentration(/cm ³)	10 ⁷ - 10 ²¹
	Mobility (cm ² /Vs)	1~10 ⁷
	Resistivity (Ohm.cm)	10 ⁴ - 10 ⁷
	A/B ratio	Ok
	RHD(cm ³ /C)	Ok
	RHC(cm ³ /C)	Ok
	RH(cm ³ /C)	Ok
	Sheet Resistance(Ohm)	Ok
	Temperature	Temperature (k): normal temperature and 77k , two temperature points" Option: 77k~500k 0.1 degrees Celsius accuracy, can be set by soft ware
Instrument size and weight	Mainframe size	H: 89mm × W: 213mm × L: 370mm
	Weight	3.21KG
Working environment requirements	0°-50°C, 70%R.H.	
Storage environment requirements	-25°C to 65°C	
Dimension of the Van der pauw rule terminal converter	200×120×110 mm (W×H×D)	
Net weight	7.7KG	
Measuring material	All semiconductor films such as Si, SiGe, SiC, ZnO, GaAs, InGaAs, InP, GaN, ITO (p-type and n-type)	

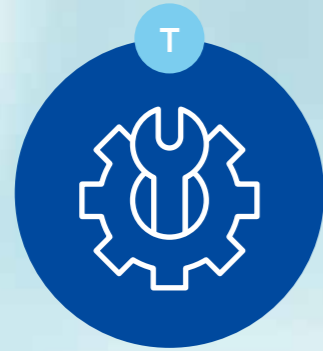
SOLUTIONS

TECHNOLOGY APPLICATIONS

TMCS Customized Solutions

SEMISHARE is a brand that can truly provide customized services to customers in the Current Chinese market. We are committed to a comprehensive systematic integration of resources, based on a strong R&D team and independent factories. At present, we have accumulated a lot of successful cases and technical experience in the industry.

No matter you are a research institute, a research institute, a chip design company, a wafer factory, a test factory, a panel factory, etc., we can provide you with all aspects of product customization services according to your needs, to meet the increasing application needs of market customers.



Technology

Technology-oriented to provide more accurate solutions, with a high degree of independent research and development and product and design capabilities, to develop products to meet customer needs.

- More than 100 technology patents
- 100% targeted solutions
- 1V1 technical project team support



Module Customization

To provide customized module products to meet customers' regular needs, modular products greatly reduce the loss of products in the process of assembly and transportation, and improve productivity and delivery efficiency, to reduce costs for customers.

- Microscope
- Micropositioner
- Probe Station
- Probe clamp/probe
- Vacuum pump
- Shockproof system



Full Customization

We provide a full range of personalized customized services, we provide from technical solutions, to the development of technology, until the final production of comprehensive development services.

Service process: customer consultation > confirm demand > provide customized solution > customer evaluation solution > business cooperation > transfer to production > acceptance delivery > tracking service

- Independent factories to speed up production efficiency
- Strict quality control guarantee



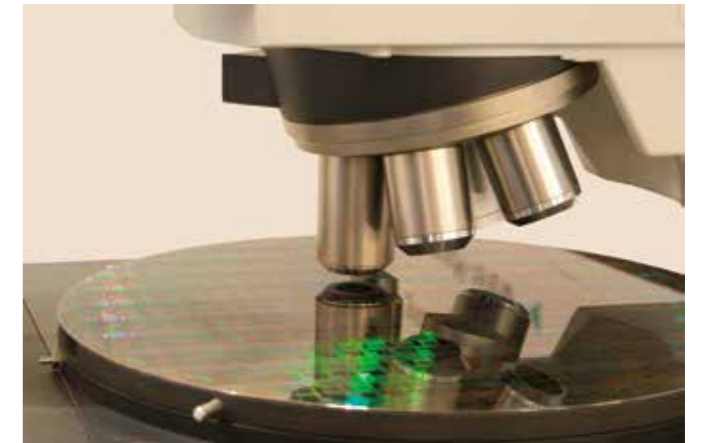
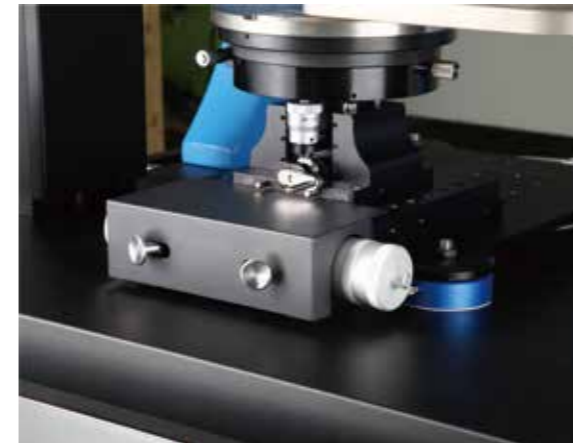
Full Tracking Service

7*24h response to customer needs through professional FAE support and local test team. Assist customers to find and solve problems in advance in laboratory measurement and mass production, fully verify product compatibility and reliability, assist customers to smoothly introduce mass production, and ensure product quality.

Solution

Accelerate The Challenge Of Innovation

SEMISHARE is a rising model of semiconductor testing equipment in China. We work together with our customers to meet the key technical challenges in semiconductor manufacturing process, jointly explore and conquer new technical problems, and provide customers with high-performance products and innovative technical solutions, so as to continuously win customers' trust.



Threelnone™ Technology

Patent Type: Technical Invention Patent

Patent Number: 201910551072.8

Threelnone™ technology provides a probe bench with high stability and semi-automatic wafer testing equipment. Through the stable structure of low center of gravity, the problem that the equipment is easy to shake and affect the test accuracy in wafer testing is solved, and the high stability performance of probe bench is guaranteed finally, so that the test can reach the high precision.

Three Zoom Patent Microscope

SEMISHARE 3 Zoom patent microscope, the industry's unique multi-field, tripling optical path system, optical 120x-2000X magnification, the size of multi-field of view display at the same time, can make the point needle more convenient operation; It can be used with semi-automatic X series probe bench to meet the testing requirements of wafer and various devices, with high compatibility and significantly improving the testing efficiency.

SpecialConditions™ Technology

Patent Type: Technical Invention Patent

Patent Number: 201910551107.8

The test probe table and test method for semiconductor devices provided by SpecialConditions™ technology can effectively create an integrated high temperature, low temperature and vacuum test environment by setting up vacuum cavity and radiation shield and other structures, which can provide a stable test environment for the semiconductor devices produced.

Chuck Air Bearing Move™ Technology

Patent Type: Technical Invention Patent

Patent Number: 201910551099.7

QuickMove™ technology provides a wafer test displacement device and wafer test stand that can move the wafer quickly and easily and lock it firmly. A sealing area is arranged on the surface of the base. The sealing area forms a sealing cavity with a smooth plane set opposite to it, and a generator capable of producing high pressure and low pressure gases is arranged. The device connects the sealing area. When the low-pressure gas is generated, the vacuum suction generated by the low-pressure gas makes the sample bearing structure firmly fixed, which can easily and quickly move the wafer and firmly lock it.

High-Performance™ Technology

Patent Type: Technical Invention Patent

Patent Number: 201910551106.3

High-performance™ technology provides a highly stable fully automatic wafer probe table and fully automatic wafer testing equipment. Through the multi-reinforcement stable structure of the automatic wafer probe platform, the problem that the equipment is easy to shake during wafer testing and the test accuracy is solved, and the motion stability and precision of the probe platform are guaranteed during wafer testing.

CUSTOMER

ORIENTED SERVICE

To Provide Customers With A Full Range Of Services

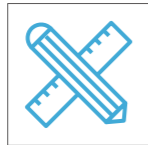
• SEMISHARE Is Dedicated To Providing Customers



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Customization



Delivery
Acceptance



Skills Training



Tracking
Protection

• Such a full range of support services, so that your time and investment can achieve greater effectiveness

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