# ENTERPRISE PROFILE

SEMISHARE is a national high-tech enterprise dedicated to providing customers with high-performance wafer probe stations and semiconductor testing technology solutions, a national specialized special new "little giant" enterprise, and Guangdong advanced wafer probe station semiconductor equipment engineering technology Research center.

We have served more than 1,000 universities, research institutes, FAB factories, panel factories, integrated circuit design/manufacturing/packaging and testing companies around the world, and have many successful projects and experience in semiconductor testing.

The standardized and customized probe station systems provided by SEMISHARE cover the testing needs from the laboratory to the fab, including: manual probe stations, semi-automatic probe stations, and fully automatic probe stations. The company's equipment is widely used in WAT/CP testing, I-V/C-V testing, RF/mmW testing, high voltage/high current testing, MEMS, high and low temperature testing, optoelectronic device testing, wafer level failure analysis, and Hall testing.

Since its establishment, SEMISHARE has rooted in its corporate DNA the mission of Serving the chip industry and promoting the development of the global semiconductor industry. We will continue our technological innovation, win customers' trust, and aim to become a world-renowned semiconductor testing equipment provider.



# Manual probe station : M/E/H series



Manual Prober Model		M4/M6/M6mini	E4/E6/E8/E12	H6/H8/H12	
	Chuck material	Stainless Steel/Nickel or gold plated copper			
Chuck	Chuck lift	N/A	Quick rise 5mm, fine tune 6mm		
	move quickly	N/A		$\checkmark$	
Micropositioner platform lift		N/A Quick coarse		Quick lift 5mm,Fine adjustment 40mm, coarse adjustment 300µm	
Microscope		Standard body microscope (optional video microscope mirror), can be magnified up to 100X	Standard PSM-1000 metallographic microscope / optional (GX-6 metallographic, stereo, video) microscope,it can be magnified to 2000X and the microscope can be adjusted up and down by air control		
Probe Current leakage		1pA/V @25°C, 100fA/V @25°C (with shielding box)			
specification	Connector type	Banana head/Alligator clip/Coaxial/Triaxial interface			
Test application		DC/(IV, CV) testing Low current (class 100fA) testing 1/f noise test Device Characterization Test WLR, aging test RF test frequency up to 110GHz High power/high current/high voltage test			
		/ Failure analysis test			

C Series High And Low Temperature Prober	Model		C6	C8	C12
	Chuck	Size	6inch	8inch	12inch
7		XY Travel	205*205mm 3		305*305mm
		Minimum displacement	1μm		
	EMI shielding		$\checkmark$		
	Multi-magnification optical system		15:1 three-speed zoom microscope, can display 3 files meanwhile		
	Temperature control characteristics	Range	-60°C~300°C		
		Resolution	0.01°C		
Press Col		Minimum temperature control rate	±0.1°C/h		
		Cooling method	Liquid nitrogen/air		air

CG Series High And Low Temperature Vacuum Prober	Model		CG-0-2	CG-0-4	CG-C-2
	Chuck	Size	2inch	4inch	2inch
		Sample fixing method	Vacuum thermal grease/spring press		
		Vacuum degree	10^-10torr maximum vacuum		
	Optical properties	Microscope travel	R axis 360°+moving axis 100mm		
		Gain	Zoom: 7:1, resolution 4µm (magnification 216X) or metallographic microscope (20X~1000X)		
		Dimensions of observation window	2inch	4inch	2inch
	Temperature control specifications	CCD pixel	50W (simulation) /200W (digital) /500W (digital)		
		Cooling method	Liquid nitrog	Liquid nitrogen/liquid helium	
		Control method	Open cycle manual/automatic refrigerant flow control		Closed loop automatic control
		Range	77K~473K/4.2K~473K		7.3K~473K
		Resolution	0.001K		
		Stability	4.2K±0.2K 77K±0.1K 373K±0.08K 473K±0.1K		73K±0.1K
	Probe specification	Probe number	The number of various probes can be expanded up to 6		
		Probe regulation	Vacuum bellows external adjustment, manual control		
		Dot accuracy	2µm		
		Current leakage	1pA/V @25°C, 100fA/V @25°C (with shielding box)		
		Connector type	Triaxial/SMA/K/Fiber Interface		ice

## Probe Station X Series / Semi-Automatic Prober



#### **Product Feature**

- The running speed reaches 70mm/s, and the test efficiency is improved by more than 40%
- -60 °C~300 °C wide test temperature range
- Advanced multi magnification optical display system, high-precision measurement and dynamic monitoring, more convenient probe contact
- 24X7 hours on-chip detection
- Self developed software integration system, with stronger compatibility

Model		X6/X8/X12				
	XY Travel range	350*365mm				
Chuck	XY Resolution	0.1µm				
	XY Repeatability	±1µm				
	XY Move speed	70mm/s				
	Z Travel range	20mm				
	Z Resolution	0.1µm				
	Z Repeatability	 ±1μm				
	Z Move speed	20mm/s				
	Range	- 60°C-300°C				
Temperature	Stability	±0.1°C				
specification	Noise	<50dB				
Probe	Current leakage	1pA/V@25°C, 100fA/V@25°C (with shielding box)				
specification	Connector type	Banana plug adapter/Coaxial /Three-axis/ SMA /SHV etc.				
		15:1 three-speed zoom microscope, can display low, medium and high				
Multi-magnificat	ion optical system	magnification images at the same time, easy to point needle				
		Support SiC/GaN wafer test, high power wafer test				
Wide a	pplication	Replaceable Chuck design for different wafer testing				
		① Support semi-automatic control (available in manual test or upgrade to automatic test)				
		<ul> <li>Automatic wafer alignment</li> </ul>				
		③ Automatic die size measurement				
		④ Automatic wafer mapping and remote access of data				
		S Managing and programming of input and output parameters freely				
Software funtion		⑥ Fast multi-testers integration				
		O One-button automatic RF calibration , automatic needle cleaning function				
		③ Operation system and applications are completely separated; operation system,				
		application system and device test system can be upgraded independently				
		③ Can support single point test and continuous test				
		In the second				
		(1) Classifying test results by different bin values and display different color in wafer map				
		③ Speed limit control and safety interlock				

## Probe Station A Series / Fully Automatic Mass Production Prober



### **Product Feature**

- High Efficiency: self-developed pre-alignment module integration, wafers can be loaded and unloaded automatically without damage, 7\*24 hours on-chip detection, to achieve safe and high-speed wafer transmission
- High Precision: micron-level full-closed-loop motion control system with an optical positioning system using the latest image software algorithm to achieve precise automatic probe contact
- High Compatibility: The manipulator can take a variety of wafers such as ultra-thin/warping/blue film/taiko wafers; the self-developed integrated hinge design can take a variety of testing machines for docking
- High Stability: Small size and light weight, low vibration, low noise(A8); low center of gravity chuck mobile platform design, more stable operation

Model		A8	A12
Facility requirement		Power: 50/60Hz AC 220	V,CDA:0.6 to 0.7Mpa,Vaccum:-70 to -90Kpa
Cassette / Wafer Size		Ф150mm, Ф200mm	Ф 200mm ,Ф 300mm
	Wafer diameter	6", 8"	8", 12"
Wafer	Wafer thickness	200-2200µm	200-2200µm
	Weight	≤500g	≤500g
	Die Size	300-100000μm	300-100000μm
Chuck	XY Travel range	260mm*450mm	X:±170mm,Y:-180,+600mm
	XY Resolution	0.1µm	0.1µm
	XY Repeatability accuracy	≤1µm	≤1μm
	XY Maximum speed	200mm/s	240mm/s
	Z Travel range	0-80mm	0-80mm
	Z Resolution	0.1µm	0.1µm
	Z Repeatability accuracy	≤1µm	≤1μm
	Theta Rotation Range	±10°	±10°
	Theta Resolution	0.0001"	0.0001"



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# Advanced wafer prober manufacturer

