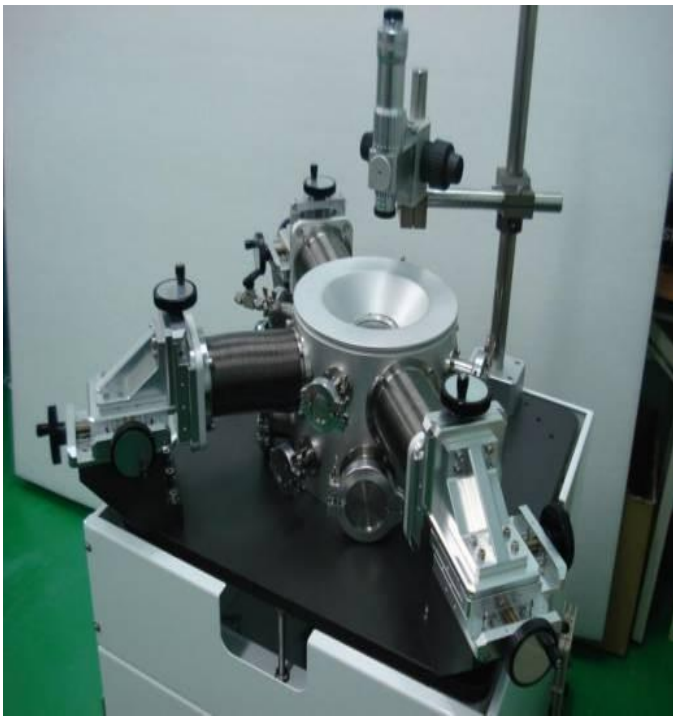


CPS50V | 50 mm Manual Cryogenic Probe Station



FEATURES / BENEFITS

- ❖ *Temperature range from 77K – 300K(Optional ranges are available on request)*
- ❖ *Chamber vacuum down to 10^{-3} Torr (10^{-8} Torr upgradable)*
- ❖ *Anti-vibration design*
- ❖ *DC measurements, High frequency measurement(RF) measurements, Resistivity measurements etc*
- ❖ *Up to Eight micro manipulated probe arms*
- ❖ *Cables, shields, and guards minimize electrical noise and thermal radiation losses*

SPECIFICATIONS

Model	CPS-50	
Weight (about)	170KG	
Power Requirement	AC220V, 50~60HZ	
Chuck	Size	2"
	Sample fixed mode	Fixed by vacuum type heat conduction silicone grease / Spring
	Movement	Fixed
	Ultimate vacuum in chamber	10 ⁻¹⁰ torr (When using corresponding turbo pump)
Microscope	Microscope X-Y travel range	2" * 2"
	Magnification	Zoom: 7:1, Resolution: 4μm (Max Magnification 216X) or can use Metallographic microscope (20X~1000X)
	Optical windows size	2"
	CCD pixels	50W (Analog) / 200W (Digital) / 500W (Digital)
	Temperature specification	Refrigeration mode
	Control mode	Open cycle manual control / Automatic refrigerant control
	Temperature control range	77K~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)
	RT to 8K cooling time	1 hour and 30mins
	8K to RT heating-up time	1 hour and 30mins
	Start from RT to	100°C - 30mins
	Heating method	Low voltage DC(LVDC)
	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 outside the chamber through Vacuum bellows

	Mechanical resolution	10 μ m / 2 μ m / 0.7 μ m
	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	
Application	Wafer testing, MEMS testing, Material testing, Holzer testing, Electromagnetic transport Characteristics in High and low temperature vacuum environment.	
Characteristics		
High and low temperature test in vacuum environment (4.2K~450K)	Can upgrade Magnetic field	
Anti-radiation shield design makes sample temperature lower and more stable	Optical fiber spectrum characteristic test	
Compatible with high magnification metallographic microscope	High frequency characteristics test (maximum 67GHz RF testing available)	
Prober Heat sink design	LD/LED/PD Light intensity / wavelength testing	
Can be upgrade to Automatic flow control	IV/CV Characteristic testing of materials / devices	