

### 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 <sup>3</sup> )	10 <sup>7</sup> - 10 <sup>21</sup>
	Mobility (cm <sup>2</sup> /Vs)	1~10 <sup>7</sup>
	Resistivity (Ohm.cm)	10 <sup>4</sup> - 10 <sup>7</sup>
	A/B ratio	Ok
	RHD(cm <sup>3</sup> /C)	Ok
	RHC(cm <sup>3</sup> /C)	Ok
	RH(cm <sup>3</sup> /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	
Dimention 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)	