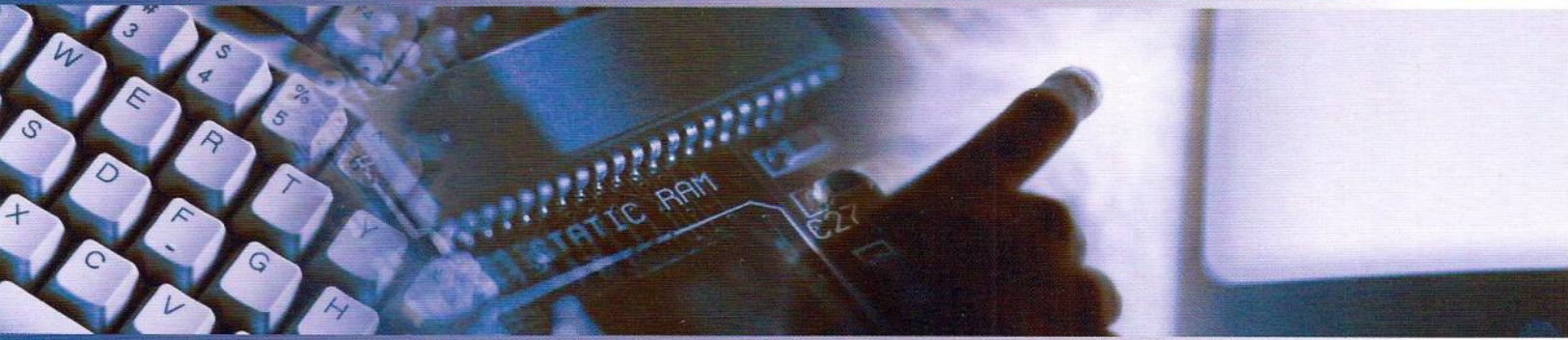


# Hall Effect Measurement System



## HMS-3000

Very Competitive Price, Compact Desktop Design, Easy-To-Use

The Ecopia HMS-3000 Hall Effect Measurement Systems are complete systems for measuring the resistivity, carrier concentration, and mobility of semiconductors.



# Hall Effect Measurement System

## HMS - 3000

### ■ Main Body



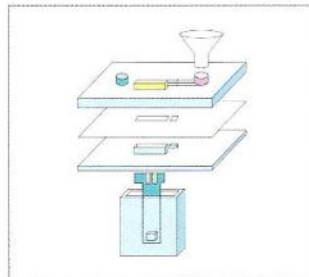
- Precise constant current source : 1nA ~20mA
- Confirm van der pauw law by this system.
- LED for checking Ohmic contact failure.
- Visualizing I-V, I-R curve.

### ■ Magnet Set



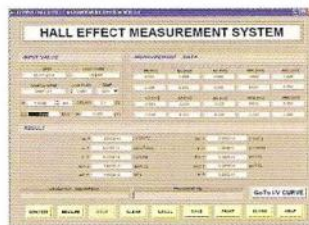
- Selectable magnetic set classified by Magnetic Flux Density.(1.0T, 0.51T, 0.37T, 0.31T)
- By ensuring magnet road, minimized outflow of Magnetic Flux Density.

### ■ Low temp test



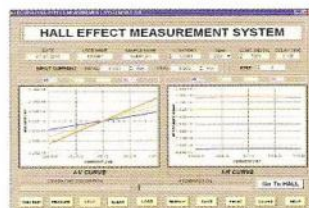
- 77K condition using liquid nitrogen offers simple structure cryostat.
- Sample protection by flowing liquid nitrogen through funnel.
- Measurable dark/light condition : built-in special material to intercept light.
- Maintain 15min at 77K by special insulating material.

### ■ HMS-3000 Software



- Results : bulk/sheet concentration, mobility, resistivity, magnetoresistance, hall coefficient (RH, RH1, RH2), conductivity, V/H ratio of resistance.

### ■ I-V, I-R Curve



- As applying input current, user can get I-V, I-R curve ranging from initial to final value.



## SPECIFICATION

SIZE (W×D×H) : MAIN BODY	320×300×105 mm (Constant Current Source/Meter System)
WEIGHT :	7.7kg(without package)
MEASURABLE SAMPLE SIZE :	6mm×6mm, 20 mm×20 mm
MEASUREMENT TEMPERATURE :	300K, 77K(Liquid Nitrogen)–Keep temp for 15min.
MEASUREMENT MATERIALS :	All semiconductors including Si, ZnO, SiGe, SiC, GaAs, InGaAs, InP, GaN (N Type & P Type can be measured).
PERMANENT MAGNETIC SIZE	50mm Diameter
MAGNETIC FLUX DENSITY :	0.31, 0.37T, 0.51T, 1.0T
INPUT CURRENT RANGE	1nA-20mA, Compliance: 13V
MOBILITY(cm <sup>2</sup> /Volt-sec)	1~10 <sup>7</sup> (including low temperature)
DENSITY(cm <sup>3</sup> ) :	10 <sup>7</sup> ~10 <sup>21</sup>
VOLTAGE MEASUREMENTS:	Input impedance: 2 x 10 <sup>7</sup> Input voltage range: +/- 12V
RESISTIVITY RANGE:	10 <sup>-4</sup> ~10 <sup>7</sup> Ohms-cm

For further information  
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