www.ecopia21.co.kr

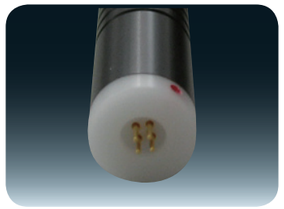
Resistivity Measurement System

- Easy to test and convenient to save and edit the tested data.
- Test and control the system on s/w program.
- Reasonable price and very compact size.
- Ecopia's Resistivity Measurement System is very accurate since it tests 8 voltage values based on van der pauw technique.

ECOPIA

Resistivity Measurement System

Model No: RMS-1000



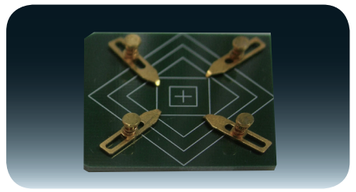
Main Body

Test in variable temperature from RT to 300dc (Based on van der pauw technique)
300dc test board can be purchased as an option

Why it must be ecopia's resistivity test system?

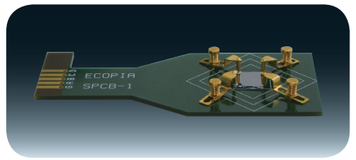
1. Accurate and powerful resistivity test system by getting 8 data values and calculate it's average.
   Checking ohmic contact by flowing +/- input current.
2. Easy to test by various kind of sample mounting board and mechanic tool.
3. Test in Variable temperature from RT to 300dc(as option) by using 8 inch heating chuck.
4. Convenient to test various size and thickness sample by SPCB (Spring Clip type sample mounting board) that can make it possible to move X.Y.Z easily.
   Convenient to replace sample.
5. It is useful to probe wafer surface's each point one by one, by moving X.Y.Z axis.
   Each X.Y.Z has micrometer to see as to how much doping level is.
6. Successful test of Resistance(Ω), Sheet Resistance(Ω/sq), Resistivity (Ωcm).
7. Input current: 1nA ~ 20mA (Easily check "Contact fail")
8. Resistivity range: 10exp-4 ~ 10exp7 Ωcm
9. I-V, I-R curve plotting capability for 4point each terminal.
   It is possible to check ohmic contact quality.

Various sample mounting board for testing Resistivity



Model No: SPCB-001

- Gold coated tip on copper shank
- 2mm ~5mm size
- sample thickness : less than 2mm

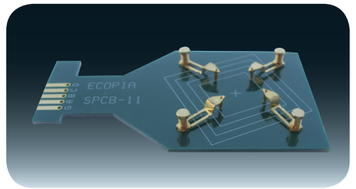


Model No: SPCB-01

- Gold coated tip on copper shank
- 5mm ~20mm size
- sample thickness : less than 2mm

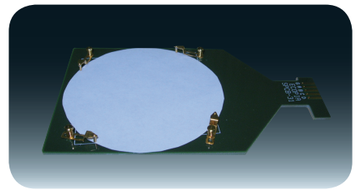
Model No: SPCB-02

- Gold coated tip on copper shank
- 5mm ~20mm size
- sample thickness : 2mm ~4.5mm



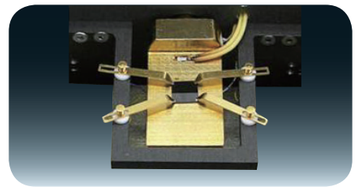
Model No: SPCB-11

- Gold coated tip on copper shank
- 15mm ~30mm size
- sample thickness : less than 2mm



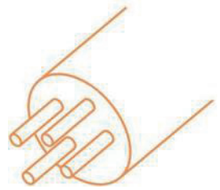
Model No: SPCB-31

- Gold coated tip on copper shank
- 50mm ~60mm size
- sample thickness : less than 2mm

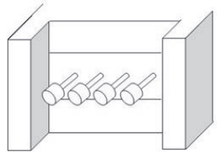


Model No: To be advised

- Gold coated tip on copper shank
- 5mm ~20mm size
- sample thickness : less than 2mm
- High temp: RT ~ 300dc



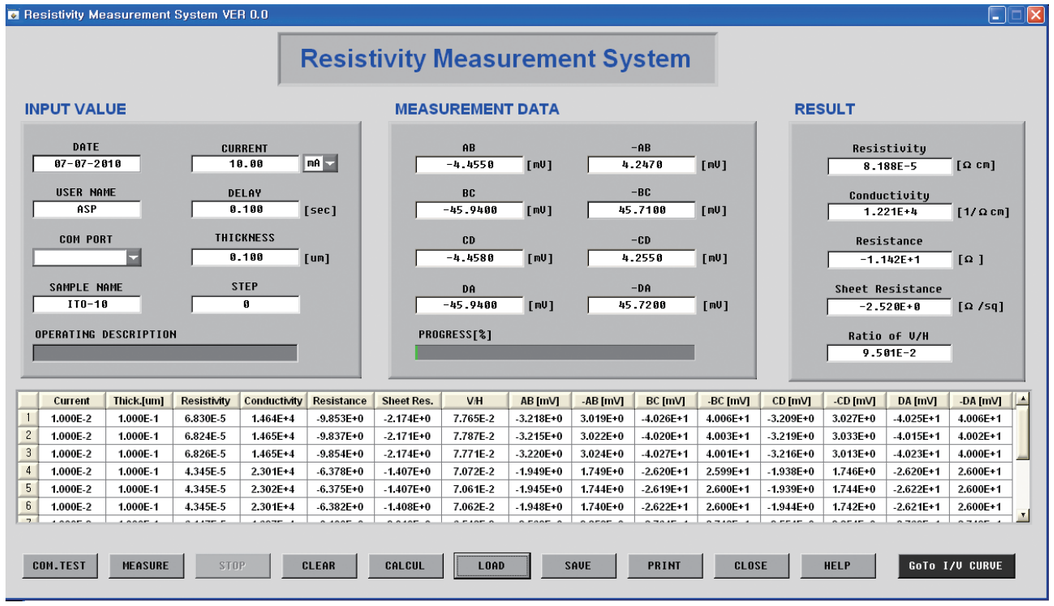
QPP type probe

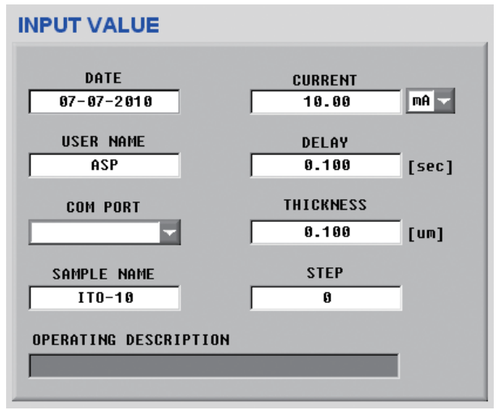


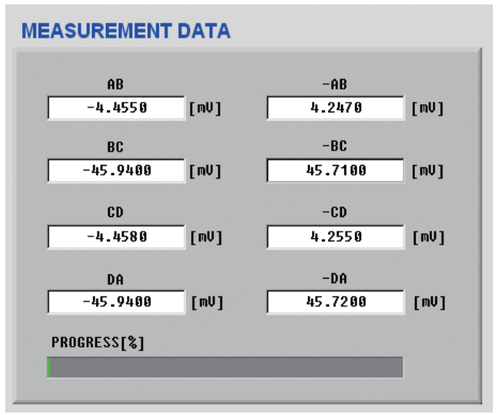
ASP type probe

Software Program - 01

Main Test Page



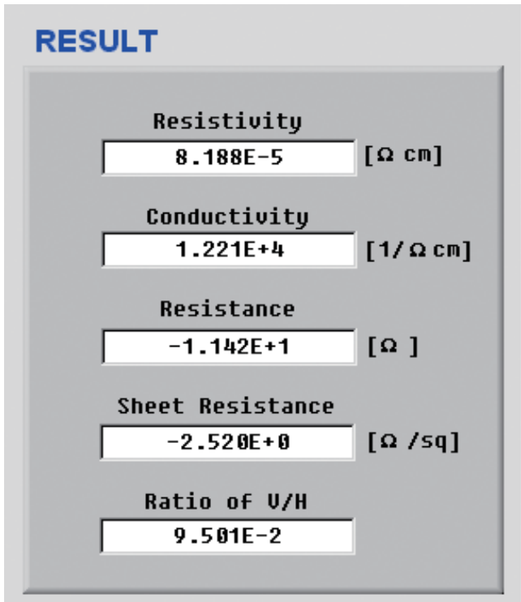




Current(1nA~ 20mA), Thickness (Doped sample thickness layer) and etc must be filled in input value.

Software Program - 01

Tested Results



Resistivity (Ωcm),

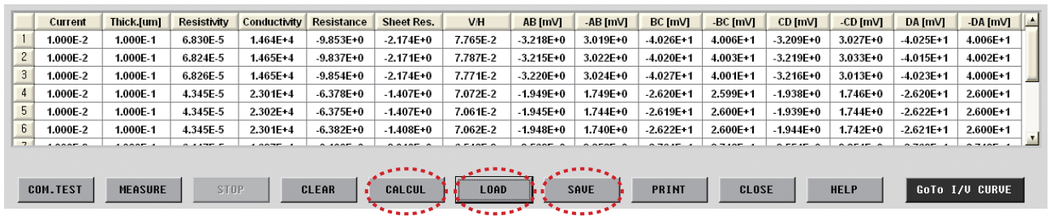
Conductivity(1/ Ωcm),

Resistance(Ω),

Sheet Resistance(Ω/sq),

Ratio of vertical resistance and Horizontal's :

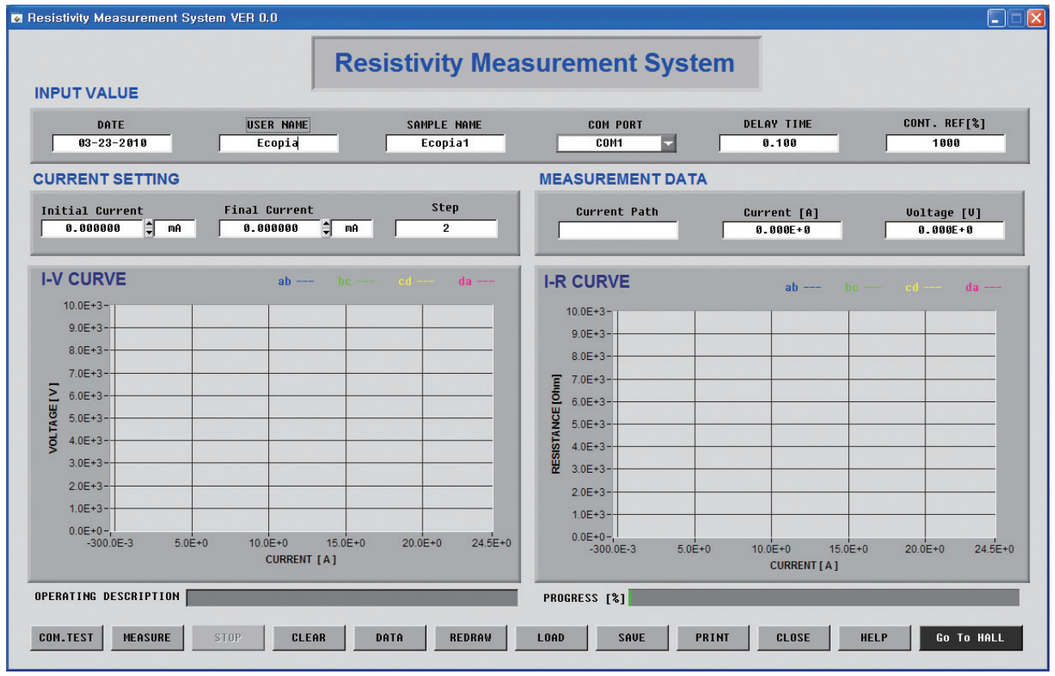
If V/H value get closer "1", you can decide it is uniform sample electrically.

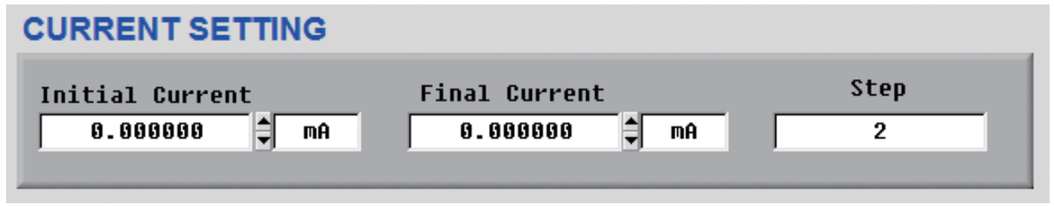


You can save the tested data in txt file and redraw by click "LOAD" button, to see saved data here again.
"CALCUL" button tap is also useful to see correct test data by changing incorrect "THICKNESS" into correct one.

Software Program - 02

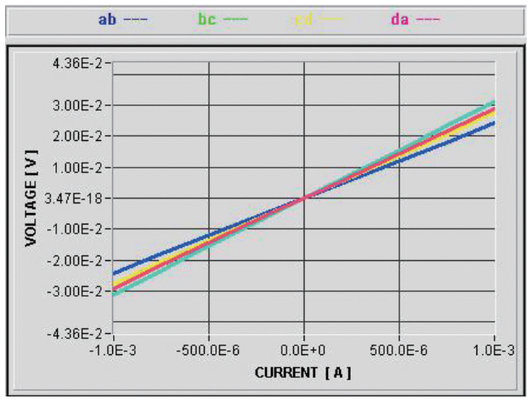
I-V, I-R test page





"Initial current" and "Final current" value must be same in absolute value but different type. "Step" is to say at how many current point it should be tested between initial current and final current.

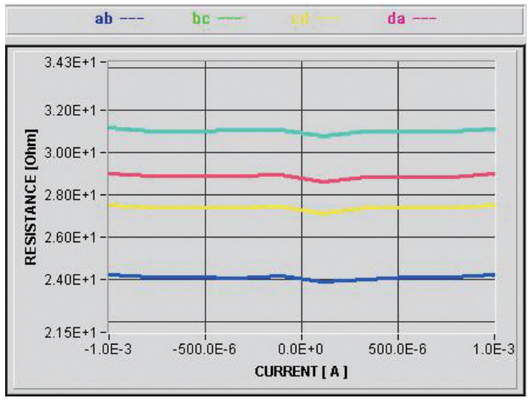
Software Program - 02



It plots CURRENT versus VOLTAGE graph.

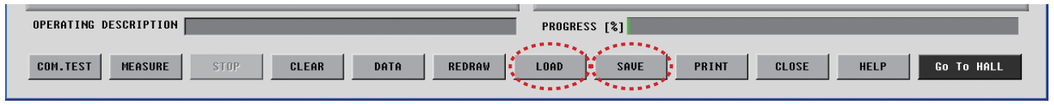
Vab, Vbc, Vcd, Vda.

Above graph is to show test graph , plotting -1mA to 1mA input current with 10 steps.



This graph is to plot CURRENT versus RESISTANCE.

Rab, Rbc,Rcd,Rda



You can save the tested data in txt file by click "SAVE" button. And, you also can recall saved data by clicking "LOAD" button.

Ecopia' s items that we have made and installed.

HMS 2000
Hall Effect system
10nA ~ 20mA
Auto/Manual
alternatively

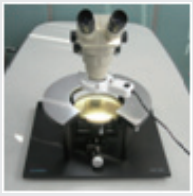
HMS 3000
Hall Effect system
1nA ~ 20mA
Auto type.
Best-selling model.

"NEW" HMS 5000
Hall Effect system
Variable temp
80 K ~ 350 K.
+/-0.5° C accuracy

SPCB and accs.
5x5mm ~ 20x20mm
Gold coated probe tip
Very convenient to use

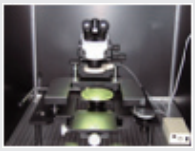
MS 55T and more.
Magnet Kit
We have more ,such as,
0.31T, 0.37T, 1.0T and
MP 55T.

"NEW" HMS3300
High temp
Hall Effect system
RT ~ 300 °C. Manual



EPS 300
Probe station
Reasonable price and
compact design

EPS 500
Probe station
0 °C~ 300 °C
We have more…



EPS 1000
Probe station
RT~ 300 °C
We have more…

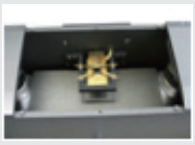
EMP-7, EMP-9
Manipulator
Reasonable price
including probe arm,
tip and cable.

ETCP 1000
Heating and cooling
Probe statioin
Reasonable price
including probe arm,
tip and cable.

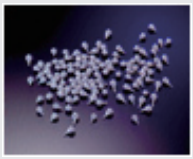
RTA 1000
Rapid Thermal
Annealer
RT ~ 1200 °C
1000 °C /40seconds

RTA 2000
Controlled by PC s/w.
RT ~ 1200 °C
1000 °C /40seconds

ELT-1000
LED Tester
IV, IR curve, Optical
characteristics



"NEW" HMS5300
Variable temp
Hall Effect system
80K~ 350K(Low)
RT ~ 300 °C(High)
Controlled by PC.



Electro-conduvtives.
To improve ohmic
contact by electrical
conductivity materials.
We have more such
as Gold paste, Carbon
paste

Dark Box and accs
We have more accs for
probe station, such as
probe tip, Triaxial cable.

Custome - made
- Photonic hall effect
- Integrating sphere system
- Photo detector test system

Ecopia corp.

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