Model : RT-70V series
4 point probe sheet resistance/resistivity measurement system

Combination measurement system by RT-70V & Stage.
Easy measurement handling & setting

Features

• Combinational measurement system by Measurement tester(RT-70V) & Stage.
• Thickness input with easy JOG dial operation (RT-70V Tester)
• Tester self-test function/Auto change-over measurement range function
• Thickness & Temperature correction function for Silicon sample
• Complies with the following ASTM & JIS
  <JIS> : JIS H 0602-1995
         : JIS K 7194-1994
  <ASTM> : ASTM F 84-99 (SEMI MF84)
           : ASTM F 374-00a
           : ASTM F 390-11
           : ASTM F 1529-97

Applications

• Semiconductor materials, Solar-cell materials (Silicon, Polysilicon, SiC etc)
• New materials, functional materials (Carbon nanotube, DLC, graphene, Ag nanowire etc)
• Conductive thin film (Metal, ITO etc)
• Diffused sample (or layer)
• Silicon-related epitaxial materials, Ion-implantation sample
• Others (*Please contact us for details)

Sample Sizes
*Depends on each measurement stage type.
Please refer back side of this leaflet for details.

Measurement Range

<table>
<thead>
<tr>
<th>Test Item</th>
<th>Measurement Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>V/I Ratio</td>
<td>1.0m ~ 3.0M ohm</td>
</tr>
<tr>
<td>Sheet resistance</td>
<td>5.0m ~ 10.0M ohm/sq</td>
</tr>
<tr>
<td>Resistivity(Slice:0.01~9999.99μm)</td>
<td>1.0μ ~ 300.0k ohm.cm</td>
</tr>
</tbody>
</table>

A global leading company for resistivity measurement system.
Measurement Stage line-up

RT-70V / RG-7C
(Tester + Auto[Motor] probe up-down stroke stage)
Size: ~ 300mm (12 inch)
Thickness: ~ 10mm

RT-70V / RG-5
(Tester + Manual[lever] probe up-down stroke stage)
Size: ~ 200mm (8 inch)
Thickness: ~ 10mm

RT-70V / TS-7D
(Tester + Hand-held 4-point probe measurement unit)
Size: ~ 20mm

RT-70V / RG-7S
(Tester + Manual X-Y & Auto Z axis stage)
Size: ~ 500 x 500mm
Thickness: ~ 10mm

*Stage plate is an option.

Measurement Accuracy / Repeatability

<table>
<thead>
<tr>
<th>Measurement Accuracy</th>
<th>Measurement Repeatability</th>
</tr>
</thead>
<tbody>
<tr>
<td>%BIAS &lt; ±1%</td>
<td>CV ≤ 0.7%</td>
</tr>
</tbody>
</table>

%BIAS = \( \frac{\bar{X} - \text{NIST guaranteed value}}{\text{NIST guaranteed value}} \times 100\% \)

\( \bar{X} \) ---- Average of same point x 10times measurement (23°C)

CV = \( \frac{\sigma}{\bar{X}} \times 100\% \)

\( \sigma \) ---- Standard deviation of same point x 10times measurement (23°C)

\( \bar{X} \) ---- Average of same point x 10times measurement (23°C)

*Measurement accuracy & repeatability as above are guaranteed values for Tester: RT-70V.

Please visit our website for the movie of this system.
*Please contact us for more details.
*The customers are always welcome to do Demo measurement.
*Specification subject to change without notice.