

# Model : RT-70V series

## 4 point probe sheet resistance/resistivity measurement system



**Combinational 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)

### Measurement Range

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

### Sample Sizes

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



## Measurement Stage line-up

\*Customized stages are also available. Please contact us for details.



### RT-70V / RG-7C

(Tester + Auto[motor]probe up-down stroke stage)

Size ; ~ 300mm(12 inch)

Thickness ; ~ 10mm

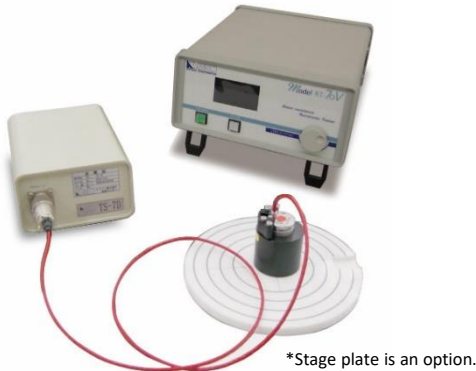


### RT-70V / RG-5

(Tester + Manual[lever]probe up-down stroke stage)

Size ; ~ 200mm(8 inch)

Thickness ; ~ 10mm

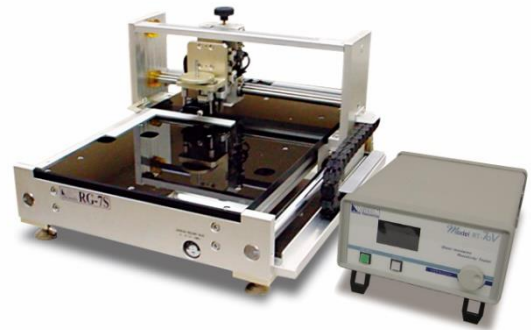


\*Stage plate is an option.

### 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

## Measurement Accuracy / Repeatability

### Measurement Accuracy

$$\%BIAS < \pm 1\%$$

$$\%BIAS = \frac{\bar{X} - NIST\text{guaranteedvalue}}{NIST\text{guaranteedvalue}} \times 100[\%]$$

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

### Measurement Repeatability

$$CV \leq 0.7\%$$

$$CV = \frac{\sigma}{\bar{X}} \times 100[\%]$$

$\sigma$  ----- 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.