NAPSON CORPORATION

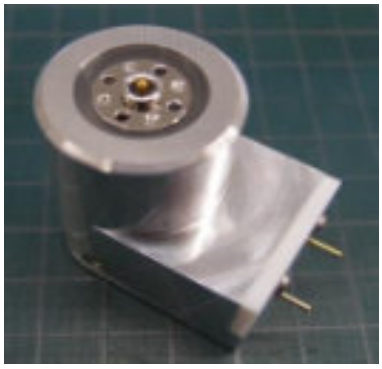
The Pioneer
for Sheet resistance/Resistivity
measurement

Model : HR-20

Contacting Type (2 Point Probe Method)
High Sheet Resistance Measuring Instrum ent







High sensitivity electrometer and high voltage DC power supply.

2-point type and ring type probes with different electrode shapes can be selected

Features

- It can be measure high resistance samples due to detect fine current.
- 2 Point Probe can be reduce the sample damage.
- Ring Probe can be measure non-heat treating high resistance film stability.
  ※Select one probe type when you order
- Napson original probe electronics (PEL-20 insulation circuit) allows the main unit and probe head to be installed at a distance.
- (Maximum wiring length is 8 meters)

Measurement Sample

・High Resistivity Thin Film
-Amorphous Silicon layer
-Poly Silicon Film
-IGZO
-PEDOT
-Functional Resin

Measurement Range

100MΩ/sq ~ 100TΩ/sq (10^{8}~ 10^{14}Ω)

Sample Size

Larger than Φ10mm
* Sample size are negotiable.

A global leading company for resistivity measurement system.







Measurement Reproducibility

Measurement Range	Measurement Reproducibility
100MΩ ~ 100GΩ	CV < 5%
1TΩ ~ 100TΩ	CV < 10%
-	$CV = \frac{\sigma}{\overline{X}} \times 100[\%]$ σ -----Standard deviation in 10 times measurement repeatability. $\overline{X}$ -----Average value in 10 times measurement repeatability (23℃)

Probe Specification

	2 Point Probe Head
Probe Form	
Needle Material	Beryllium copper + Gold Plate
Radius	500μm
Loads	About 50g/ a needle
Needle spacing	4mm
Insulation resistance in needle spacing	$>10^{15}$ Ω (Test Voltage DC100V)
Lighting Function	RED LED

	Ring Probe Head
Probe Form	
Needle Material	Beryllium Copper + Gold Plate
Ring Electrode	Copper + Nickel + Gold Plate
Ring Electrode Size	Diameter: 4mm
Loads (Needle Center)	About 50g
Electrode Loads	About 5.9N (600gf)
Insulation resistance in electrode	$>10^{15}$ Ω (Test Voltage DC100V)

Size/ Weight / Power Supply

< Size · Weight > · HR-20: W130 × D250 × H330mm, 6.3kg
· PEL-20: W105 × D75 × H210mm, 0.7kg
< Power Supply > AC100V/115V/200V/230V±10%, 50/60Hz, 50VA

* Please contact us for more details.
* Specification subject to change without notice.

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