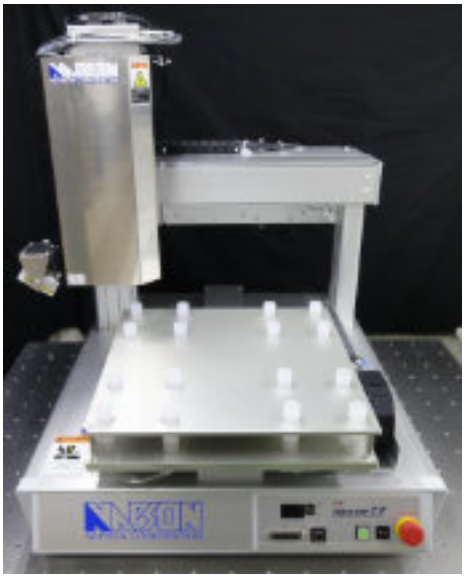
NAPSON CORPORATION

The Pioneer
for Sheet resistance/Resistivity
measurement

Model : CRN-100

Non-contact Ultra-High range sheet resistance measurement system



CRN-100 : Non-contact Ultra-High range sheet resistance measurement system measures

Ultra-High range sheet resistance : 10^9 ~ 10^{15} ohm/sq

without contacting (Corona discharge method).

The probe is composed of a grid type corona charger and a surface voltmeter located next to the charger. A test material was placed below the probe without contact to the material at a gap of 2 mm.

Epoch-making measurement system for Ultra-High range sheet resistance by Non-contact

Feature and function

*Ultra-High range sheet resistance measurement
for 10^9 ~ 10^{15} ohm/sq without contacting.
*Mapping program software
- Arranged in a multipoint pattern measurement is programmed
- 2-D, 3-D mapping software
*Easy operation by Windows 7 system software
*Measurement data base link with Excel via CSV format file

<Corona discharge method>
Joint development with Yamagata Univ.
(Associate Professor : Toshiyuki Sugimoto)
Obtain a patent [Pat.No.5510629]

Applications

Any sample within the measurement range can be measured.
- Thin film layer (a-Si, IGZO etc)
- Coating material
- Semiconductor material
- Approximate material as Insulator

***Please contact us for demo measurement.**

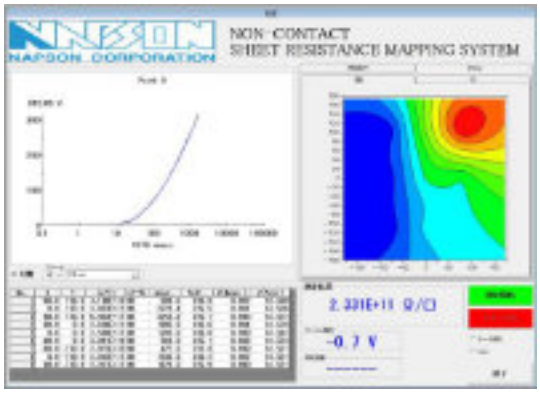
Sample sizes

Size : ~ 300x400mm (or more larger)
Thickness : ~ 2mm
*We can design as your requirement.
Please contact us for customize.

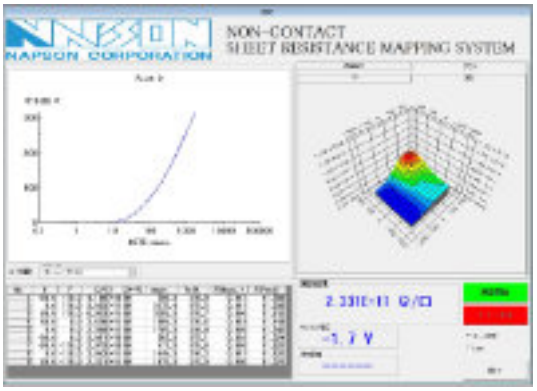
A global leading company for resistivity measurement system.



Software Interface

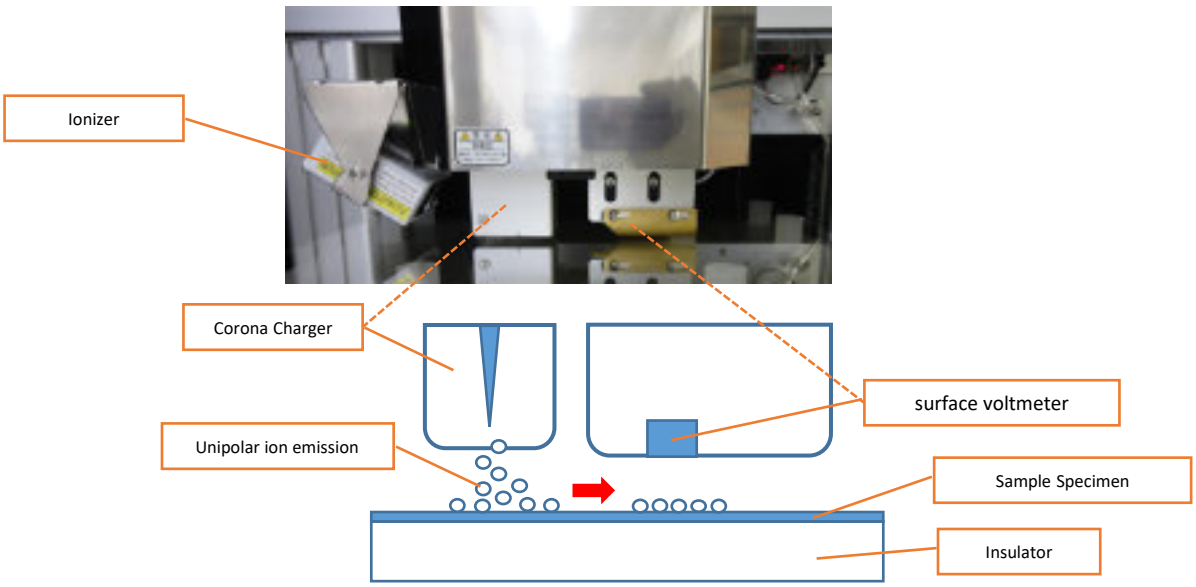


2-D Mapping



3-D Mapping

About [Corona discharge method]



(1) Unipolar corona ions are supplied to the surface of the test specimen.
(2) The surface of the test specimen is partly charged.
(3) The surface charge is traveled through the surface toward an area of lower surface potential.
(4) The surface potential rise time is measured by the surface voltmeter(detector.)
(5) This rise time depends on the surface resistance of the materials.

Notice: Expected measurement range of sheet resistance is 10^9 to 10^{15} ohm/sq.

Feature of this method;

1 : The measurement is not affected from surface conditions of specimen such as sparseness oxide layer.

2 : The surface of the specimen is not damaged.

3 : The measurement is not affected by the contact resistance.

☆**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.

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