NAPSON CORPORATION

The Pioneer
for Sheet resistance/ Resistivity measurement

Model : FLA-200/FLA-300

Semi-automatic non-contact wafer flatness measurement system





Measures Thickness, TTV, Bow, Warp and site and global Flatness (ASTM compliance) by Non contact

- Measures Thickness, TTV, Bow, Warp and site and global Flatness (ASTM compliance)
- High accurate 5 mm in diameter core capacitance sensors
- Full 500 micron thickness measurement range without re-calibration
- Max. 12,000 sites measurement in 1 minute
- 2 D/3 D Mapping software
- Measurement data base link with Excel via CSV format file
- <Option> FLA300 : For up to 300mm wafer size

- Material : Semiconductor wafers such as Si, SiC
- Surfaces: As Cut, Lapped, Etched, Polished, Patterned
- Flat/Notch : All SEMI Standard Flat(s) or Notch
- Conductivity type: P or N type

Size:75 ~ 200mm(3 ~ 8inch)
[*FLA300 : 75 ~ 300mm(3 ~ 12inch)]

Measurement Item	Measurement Range
Thickness	225 ~ 1,225 μm (In case of Warp < 100 μm)
BOW	+/- 350 μm (In case of Thickness 725μm)
WARP	350 μm (In case of Thickness 725μm)

<Site data> Thickness (Center, Max, Min, Ave), SBID, SBIR, SF3D, SF3R, SFLD, SFLR, SFQD, SFQR
<Global data> GF3D, GF3R, GFLD, GFLR, Bow-3P, Bow-BF, Warp-3P, Warp-BF, Sori-3P, Sori-BF, FPD%, Taper, Roll off

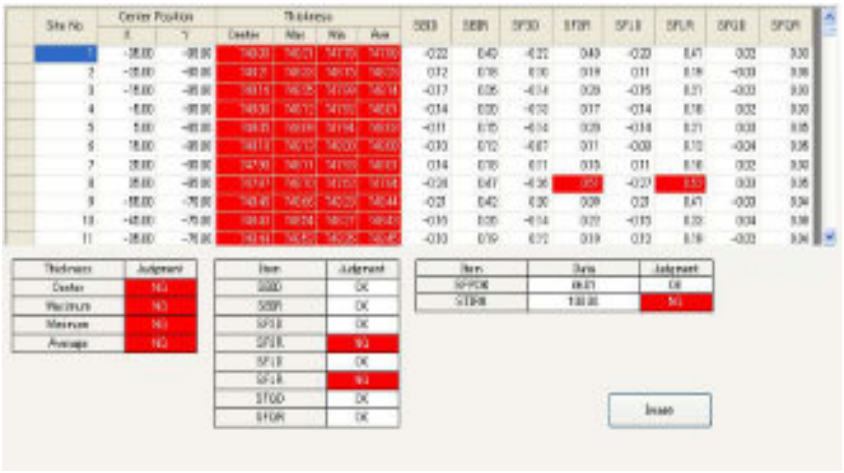
A global leading company for resistivity measurement system.



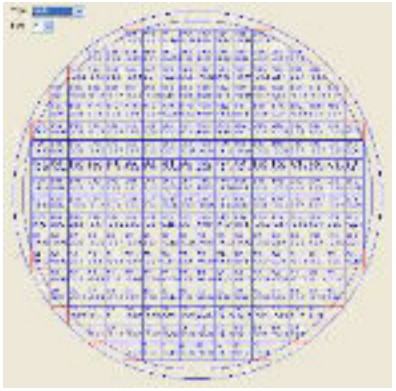




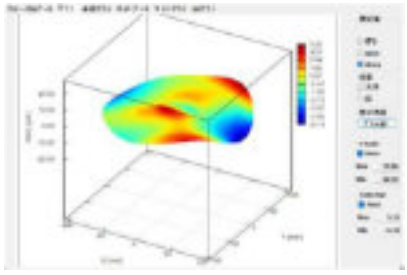
・Measurement result can be displayed by 2-D / 3-D map graphic.
・Mapping graphic can be saved by JPEG file.



Software : Main



Site data image



3-D map graphic

Measurement Item	Accuracy	Repeatability(σ)
Thickness (ASTM F533)	+/-0.5μm	0.15
TTV (ASTM F657)	-	0.1
Bow (ASTM F534)	±(3.0μm +5%of reading)	1.0μm +1%of reading
Warp (ASTM F1390)	±(3.0μm +5%of reading)	1.0μm +1%of reading
Flatness [site] (ASTM F1530)	+/-0.3μm	0.1
Flatness [global] (ASTM F1530)	+/-0.3μm	0.1

* Repeatability = σ (10 times measurement、Typical with Silicon wafers)
* Site size X,Y = Select from 8 mm ~ 30 mm settings (by 0.1mm unit)
* Above value is based on the measurement by Napson samples.

Measurement Points(200 mm wafer)	Throughput
12,763 points(4mm spacing)	approx. 36 sec
8,559 points(6mm spacing)	approx. 31 sec
6,582 points (8mm spacing)	approx. 28 sec

* Throughput will change by setting conditions, resistance value and the sample surface state.

*Please contact us for more details.
*The customers are always welcome to do Demo measurement.
*Specification subject to change without notice.

Toho Technology, Inc.
4809 N Ravenswood Ave #113, Chicago, IL 60640, USA
TEL: +1-773-583-7183
info@tohotechnology.com www.tohotechnology.com

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