

High Precision Wafer Flatness Measurement Machine Nanometro 300TT

黒田精工株式会社

nanometro **TT** series

**KURODA introduces following in-line
inspection system**

For 200mm wafer 200TT

For 300mm wafer 300TT

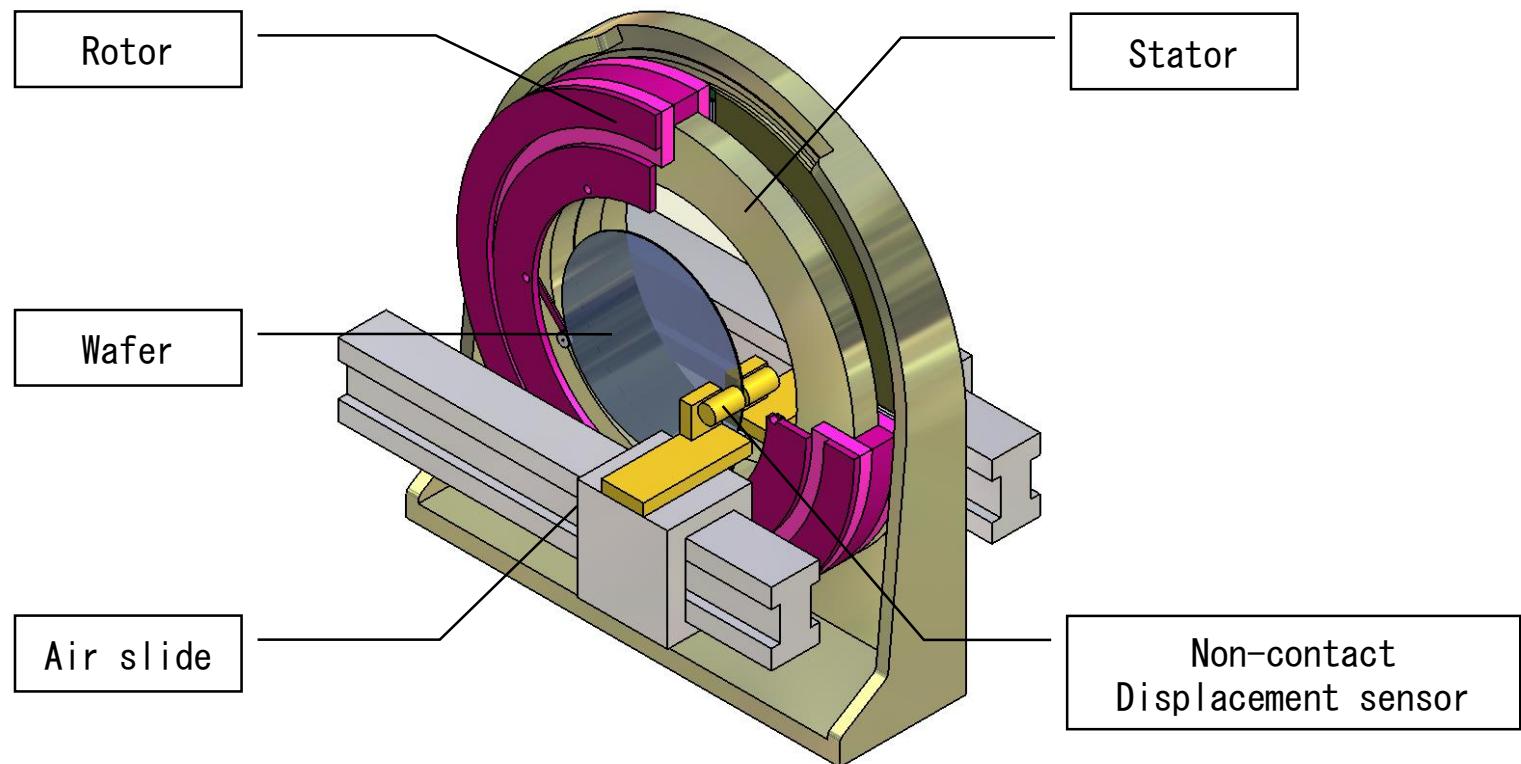


nanometro® 300TT/200TT

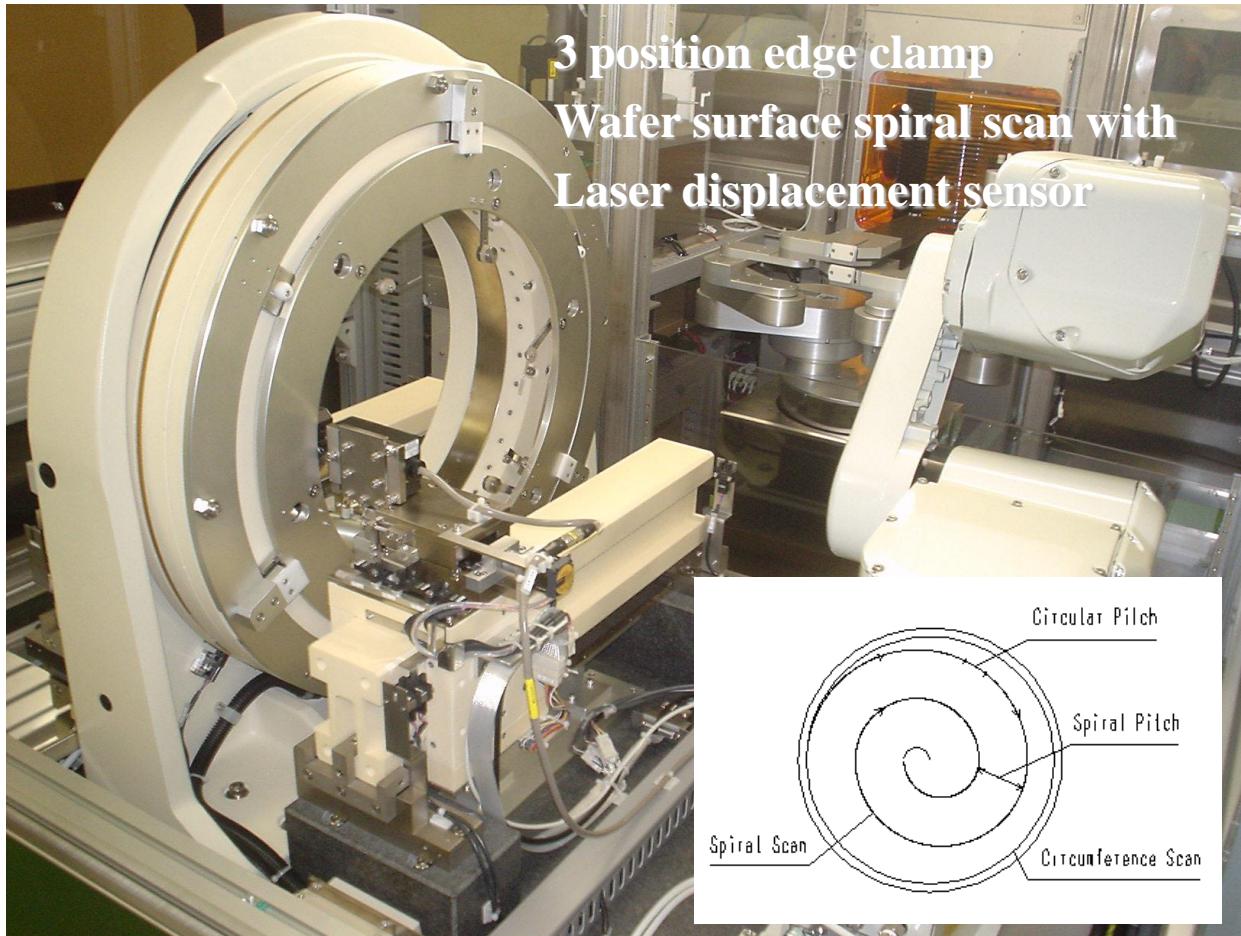
Characteristics of 300 TT

- High movement precision
- Edge exclusion Min. 1mm
- Conformable to on-line requirement
- FOUP, FOSB
- Various measurement modes
 - I Flatness, SORI measurement
 - II Radial measurement
 - III Edge area measurement

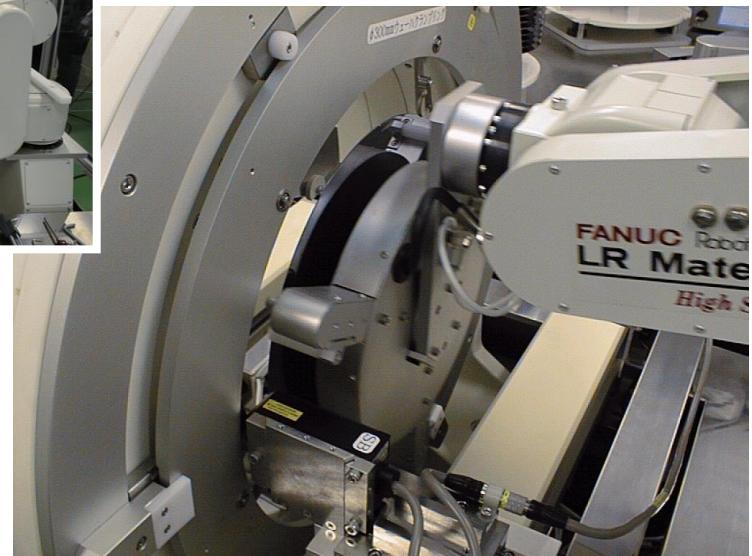
Construction of 300TT



Construction of 300TT

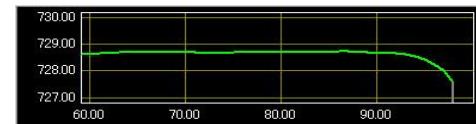
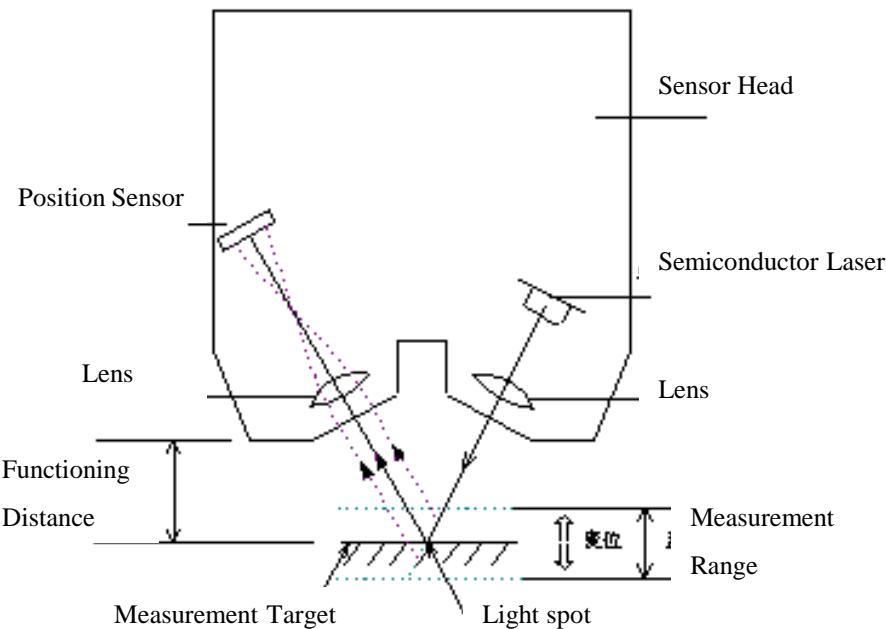


Stable Transfer System

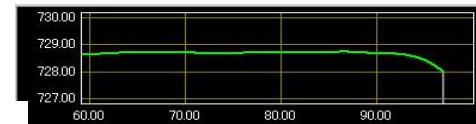


Edge Exclusion Min. 1mm

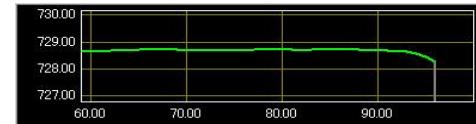
Small spot diameter for Laser displacement sensor



E. E. = 1 mm

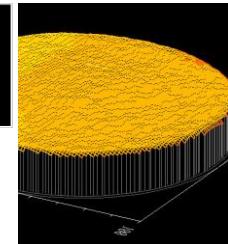
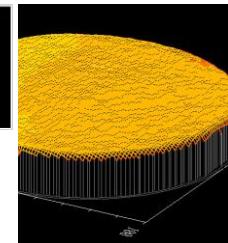
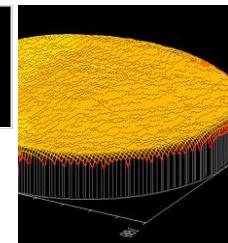


E. E. = 2 mm



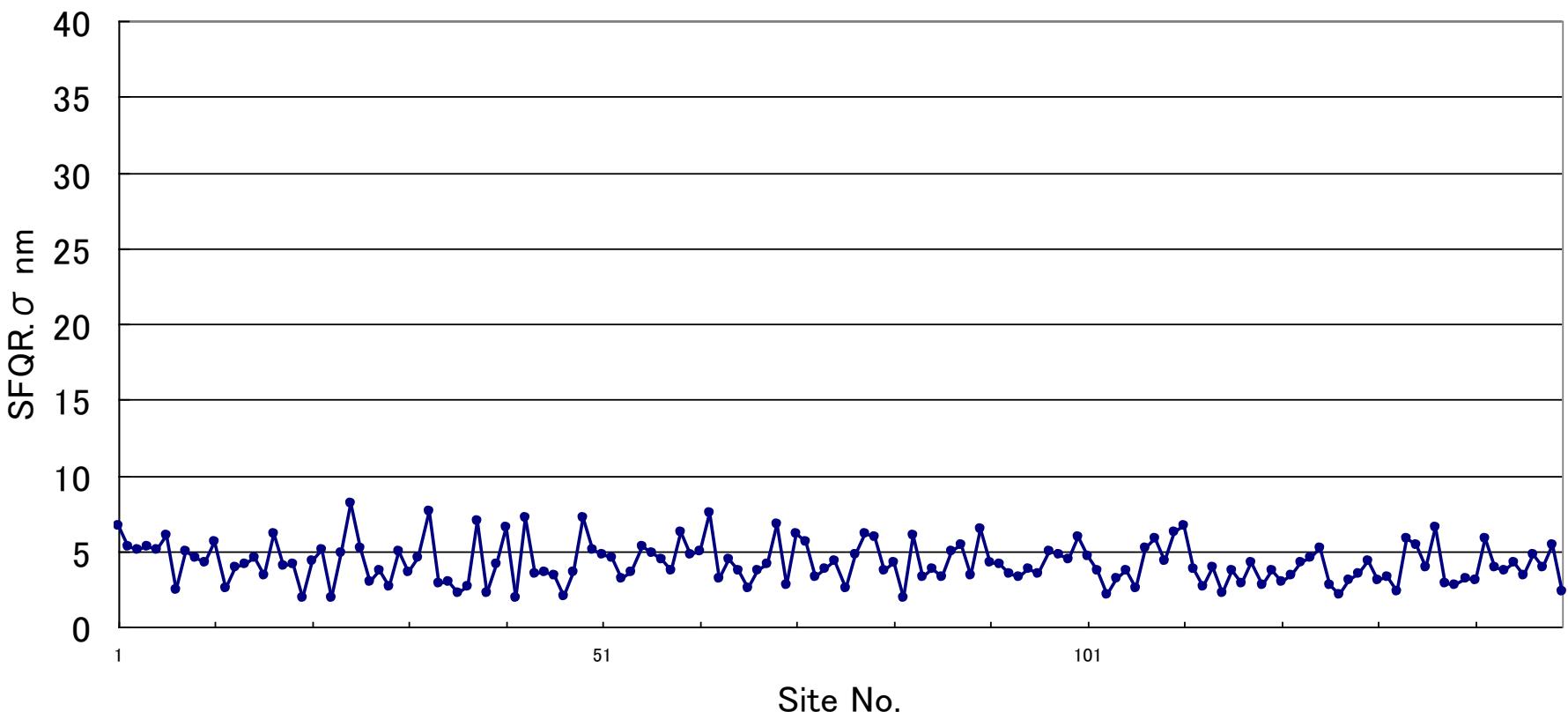
E. E. = 3 mm

(E. E. = Edge exclusion)

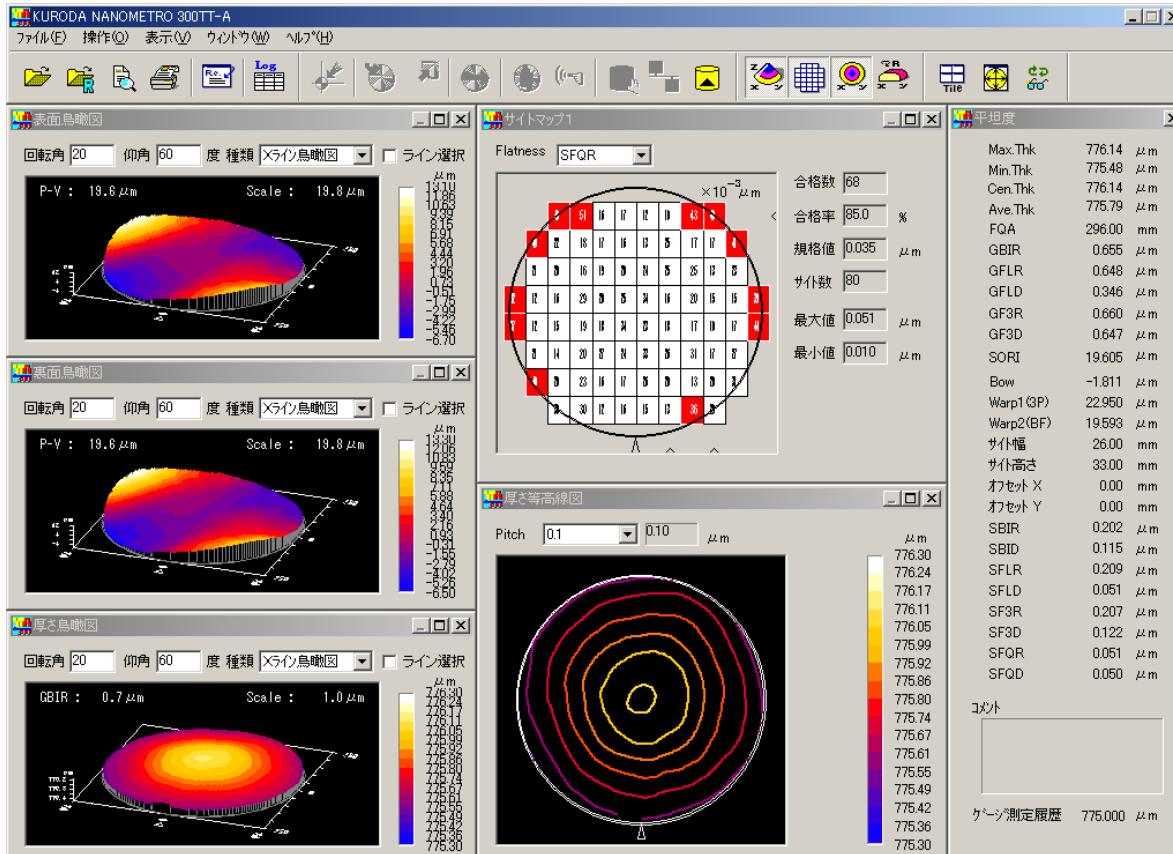


Repeatability 15nm(σ)

Repeatability, 10Times, KKS300Wafer
SFQR, SiteSize26x8, EE3



Example of Flatness Measurement

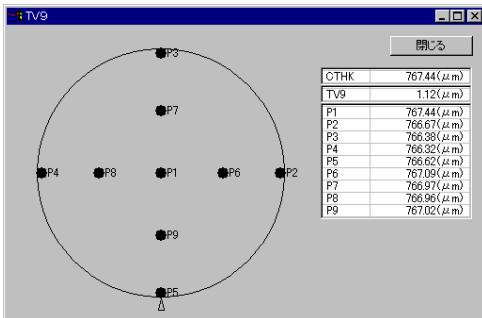


Flatness & Shape Measurement

(Flatness & Shape)

Measurement parameter conforms
to SEMI Standard

- Max.Thk, Min.Thk, Cen.Thk, Ave.Thk,
- GBIR(TTV), GFLR(TIR), GFLD(FPD), GF3R,
GF3D,
- SORI, Bow, Warp-3P, Warp-BF,
- SBIR(LTV), SBID(SFPD), SFLR, SF3R, SF3D,
SFQR(STIR), SFQD

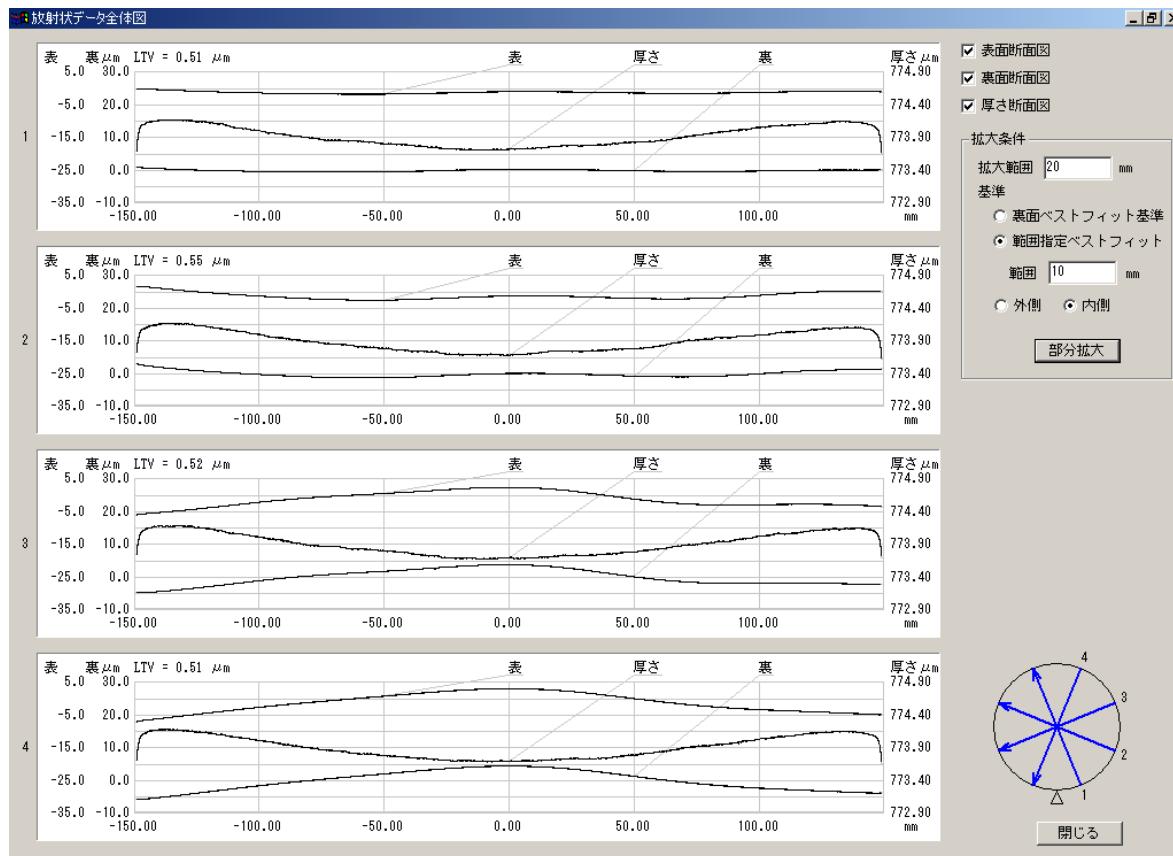


平坦度	
Max.Thk	776.14 μm
Min.Thk	775.48 μm
Cen.Thk	776.14 μm
Ave.Thk	775.79 μm
FQA	296.00 mm
GBIR	0.655 μm
GFLR	0.648 μm
GFLD	0.346 μm
GF3R	0.660 μm
GF3D	0.647 μm
SORI	19.605 μm
Bow	-1.811 μm
Warp1(3P)	22.950 μm
Warp2(BF)	19.593 μm
サート幅	26.00 mm
サート高さ	33.00 mm
オフセットX	0.00 mm
オフセットY	0.00 mm
SBIR	0.202 μm
SBID	0.115 μm
SFLR	0.209 μm
SFLD	0.051 μm
SF3R	0.207 μm
SF3D	0.122 μm
SFQR	0.051 μm
SFQD	0.050 μm

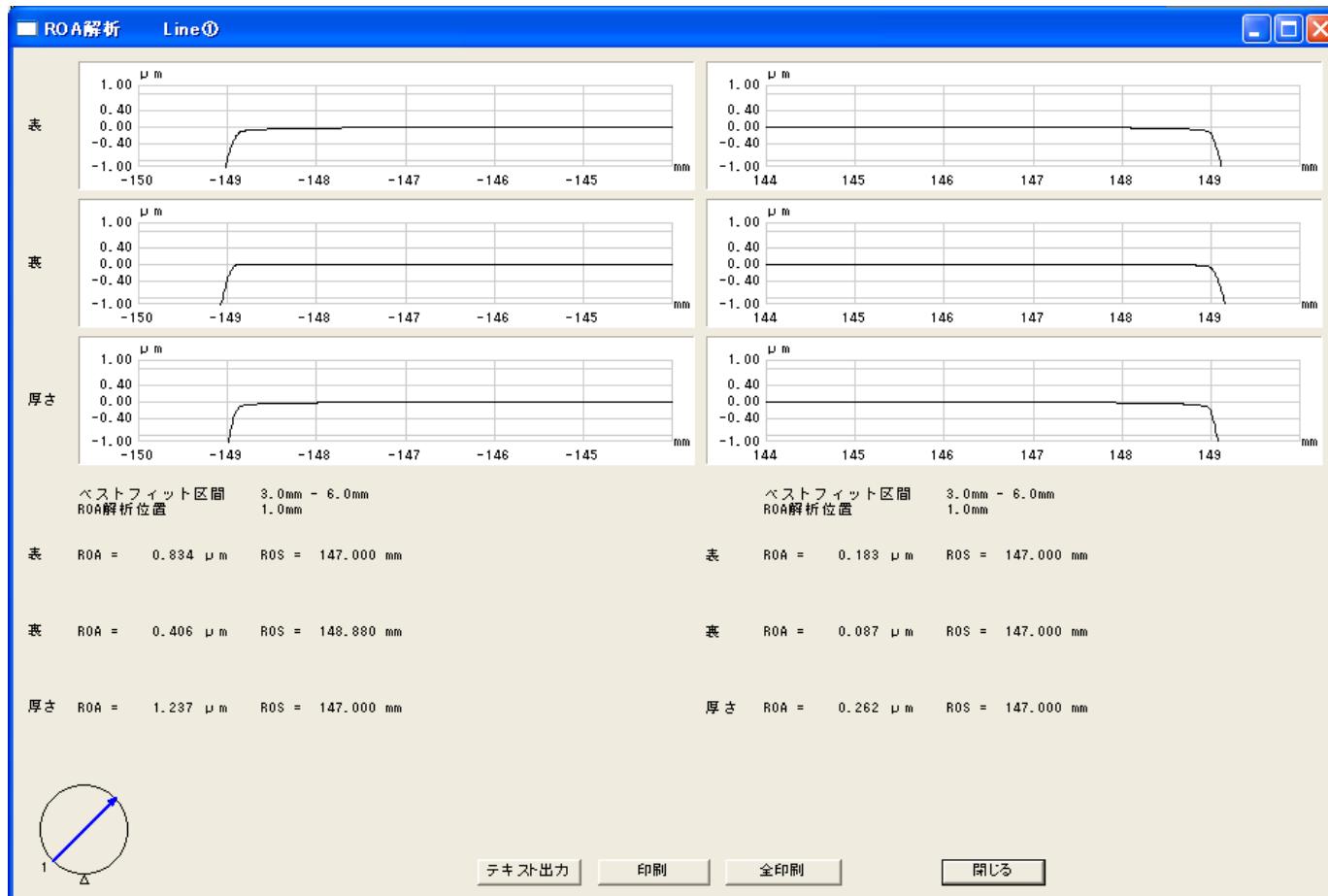
コメント

ケージ測定履歴 775.000 μm

Example of Radial Measurement

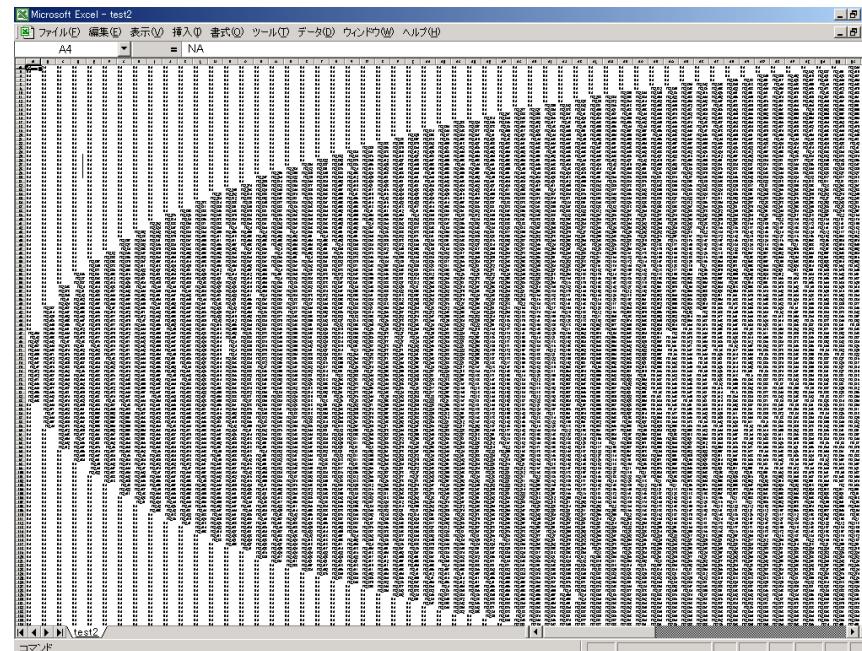


Example of Edge Roll-off



CSV out-put of lattice data

Raw thickness data can be out-put as CSV format



A screenshot of Microsoft Excel showing a large CSV file titled "test2". The file contains a grid of data, primarily consisting of the character "A". The data is organized into approximately 100 columns and 100 rows. The top-left cell is labeled "A4" and contains the value "NA". The menu bar at the top includes Japanese text: ファイル(F), 編集(E), 表示(V), 挿入(I), 書式(O), ツール(T), データ(D), ウィンドウ(W), ヘルプ(H). The status bar at the bottom shows the path "\test2\" and the word "コマンド".

Drawing for Open cassette Spec.



nanometro® 300TT/200TT

Drawing for FOUP spec.

