

Nikon NSR TFHi14DL

Serial Number 1616002

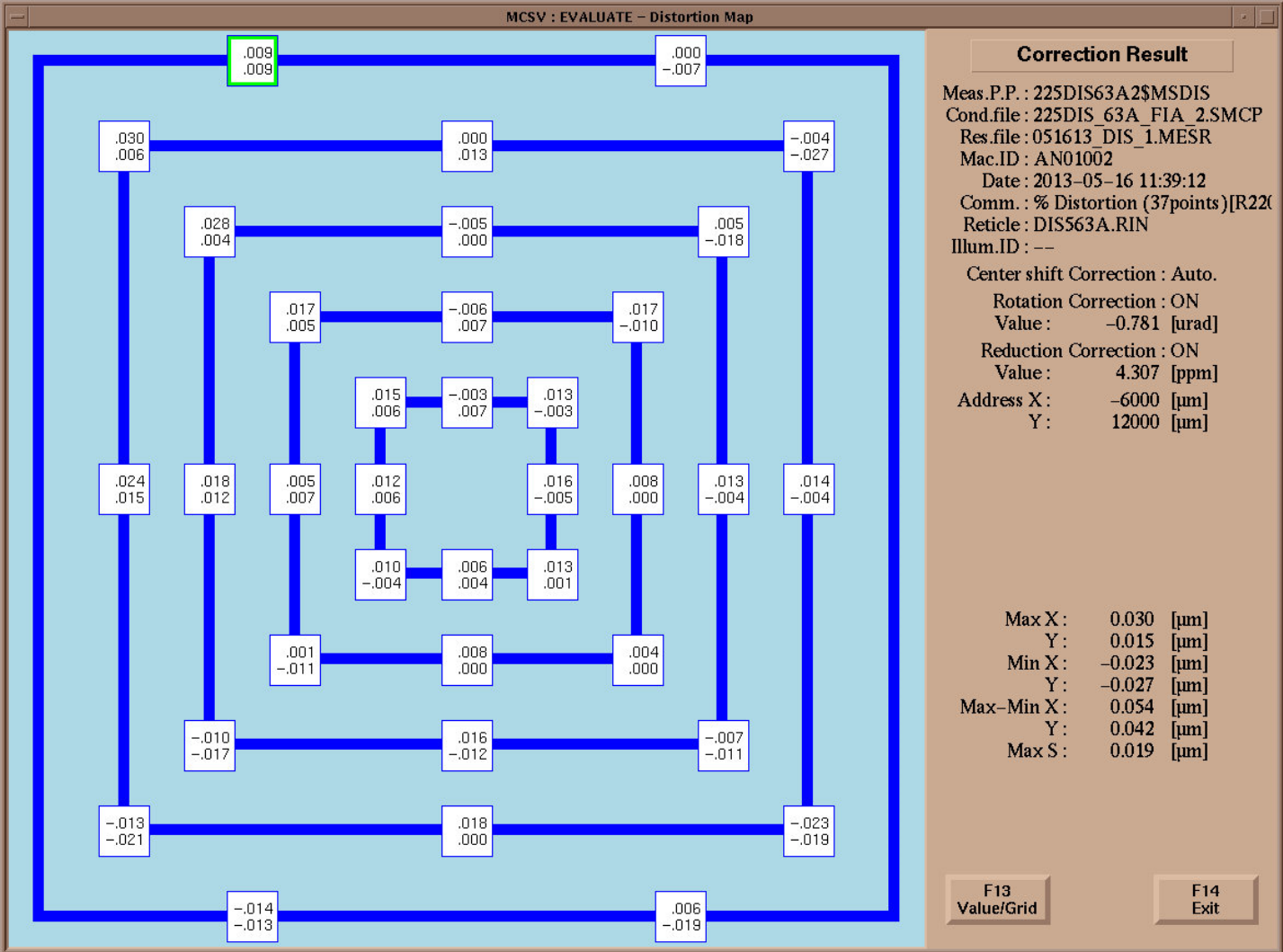
Photo Test Results



Exposure Intensity and Uniformity



Distortion Data



Wafer Flatness

MCSV : EVALUATE - Local Flatness

Wafer Flatness

Meas. Proc.Prog. : 226WFLAT2\$WFLAT
 Condition File : 226WFLAT_2.WFCP
 Result File : kl_032615_2.WFLT
 Machine ID : AN01002
 Date : 2015-03-26 14:19:48
 Comment : Wafer Flatness(11mm pitch)

Measurement Condition		Measurement Result	
Map Layout X :	13	Base Plane :	Stage
Y :	13	Max. :	1.065 [μm]
Step Pitch X :	11000.000 [μm]	Min. :	-0.573 [μm]
Y :	11000.000 [μm]	Max.-Min. :	1.638 [μm]
Map Offset X :	0.000 [μm]	Approximated Plane	
Y :	0.000 [μm]	Angle X :	-0.384 [μrad]
Image Plane X :	0.000 [μrad]	Angle Y :	-0.292 [μrad]
Y :	0.000 [μrad]	App. Plane-Image Plane	
Leveling :	OFF	Angle X :	-0.384 [μrad]
Leveling Offset X :	0.000 [μrad]	Angle Y :	-0.292 [μrad]
Y :	0.000 [μrad]	Local Flatness Simulation	
		L.F.S. Mode :	3-Asterisk
		Max. :	1.194 [μm]
		1	
		Wafer No.	
		Prev	Next

F6 Param. F9 L.F. map F10 W.F. map F12 Retry F14 Exit

MCSV : EVALUATE - Wafer Flatness Map

Wafer Flatness

Res.File : kl_032615_2.WFLT
 Mac.ID : AN01002
 Date : 2015-03-26 14:19:48
 Comm. : Wafer Flatness(11mm pitch)

Wafer No. : 1
 Base Plane : Stage
 Max. : 1.065 [μm]
 Min. : -0.573 [μm]
 Max.-Min. : 1.638 [μm]

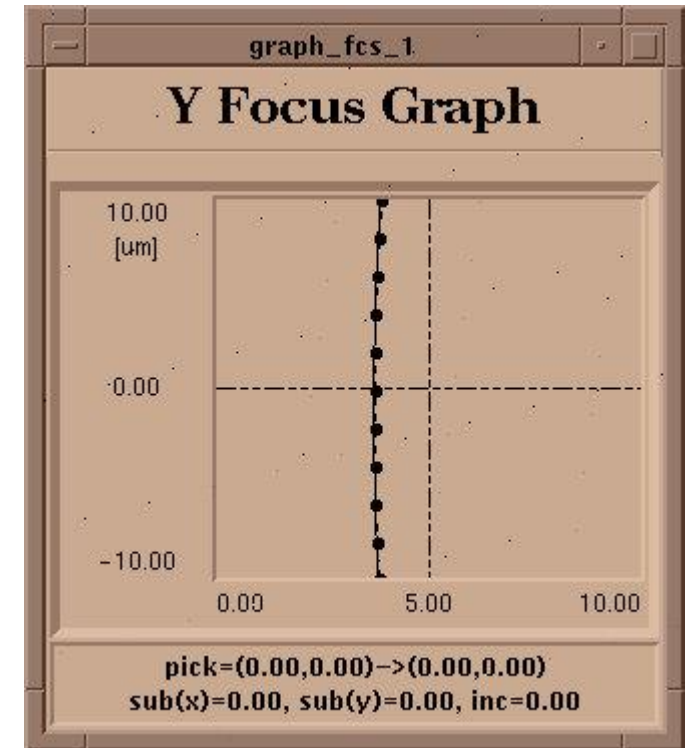
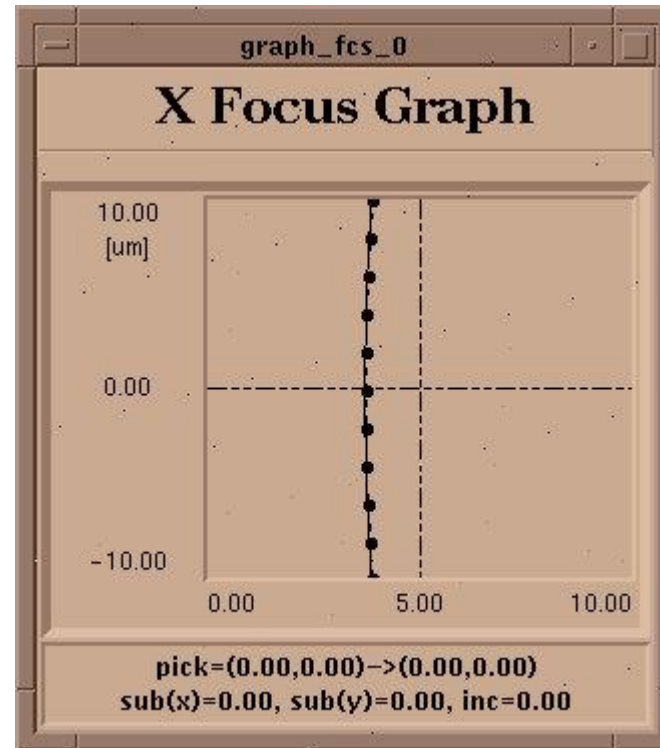
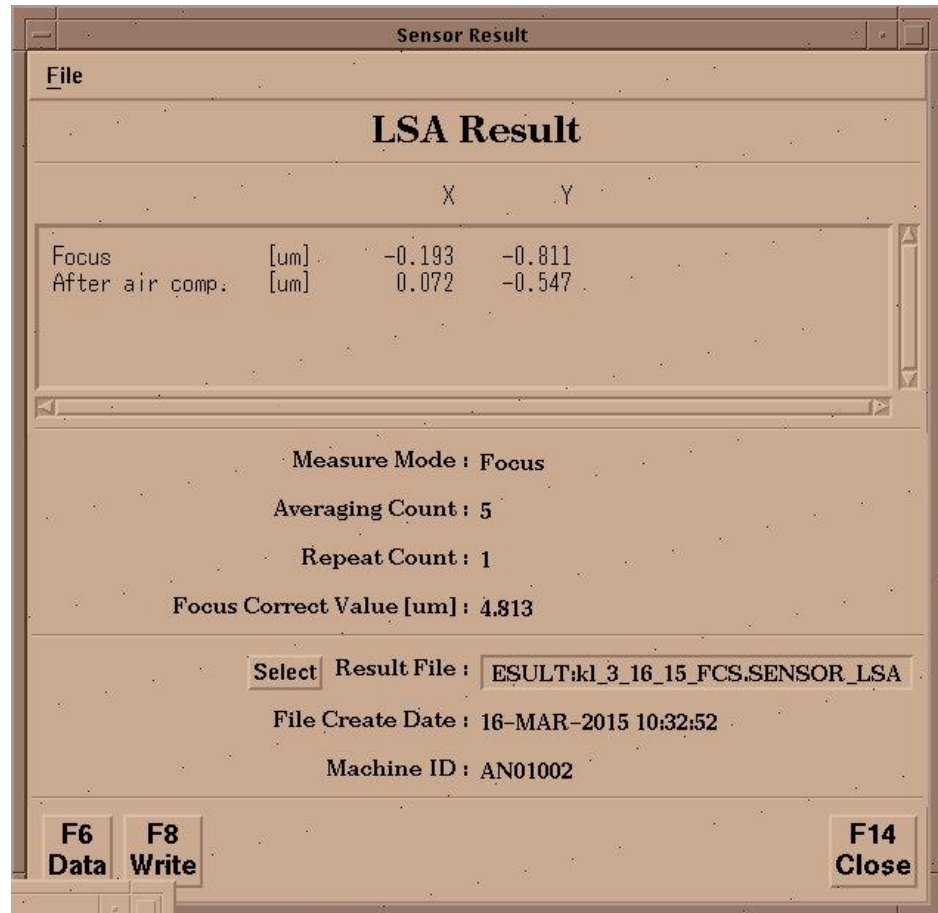
	1	2	3	4	5	6	7	8	9	10	11	12	13	
1					-0.391	-0.233	-0.246	-0.044	0.090					
2			-0.305	-0.184	-0.052	0.220	0.009	0.153	0.275	0.530	0.694			
3		-0.012	0.153	0.174	0.110	0.118	0.190	0.177	0.343	0.556	0.875	0.941		
4		0.396	0.395	0.177	0.205	0.200	0.206	0.126	0.321	0.506	0.691	0.758		
5	0.469	0.581	0.375	0.248	0.223	0.221	0.181	0.178	0.370	0.440	0.687	0.812	0.771	
6	0.855	0.686	0.430	0.264	0.172	0.091	0.099	0.151	0.278	0.388	0.495	0.677	0.816	
7	1.027	0.761	0.443	0.270	0.166	0.003	0.018	0.187	0.197	0.397	0.523	0.708	0.749	
8	MAX	1.066	0.708	0.447	0.247	0.197	-0.017	0.004	-0.077	0.146	0.164	0.247	0.516	0.562
9	0.875	0.757	0.424	0.118	-0.147	-0.302	-0.240	-0.348	-0.264	-0.113	0.090	0.276	0.403	
10		0.835	0.448	0.136	-0.170	-0.415	-0.411	MIN	-0.573	-0.517	-0.316	-0.161	0.141	
11		0.909	0.805	0.489	0.196	0.034	-0.223	-0.285	-0.199	-0.017	0.182	0.341		
12			0.691	0.780	0.649	0.360	0.194	0.249	0.275	0.421	0.458			
13					0.609	0.665	0.566	0.374	0.441					

5.000
3.750
2.500
1.250
0.000
-1.250
-2.500
-3.750
-5.000 [μm]

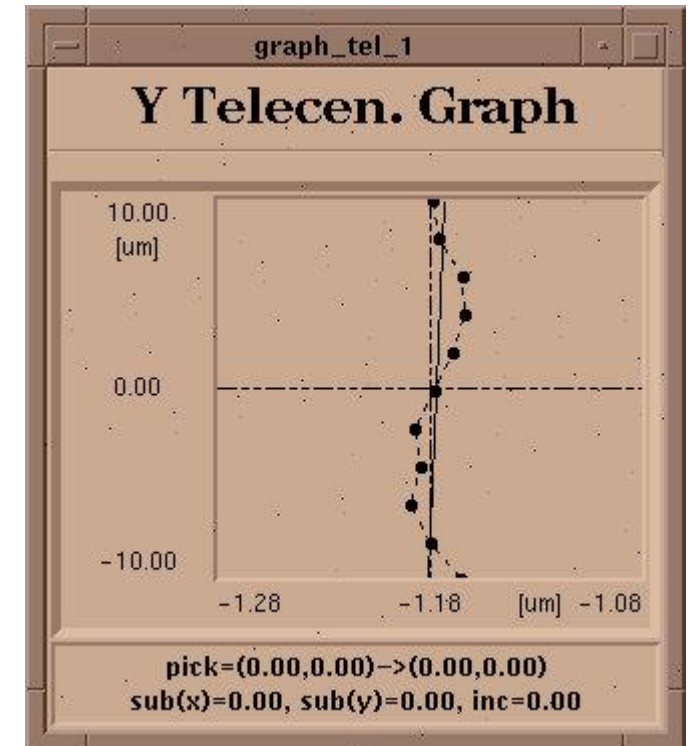
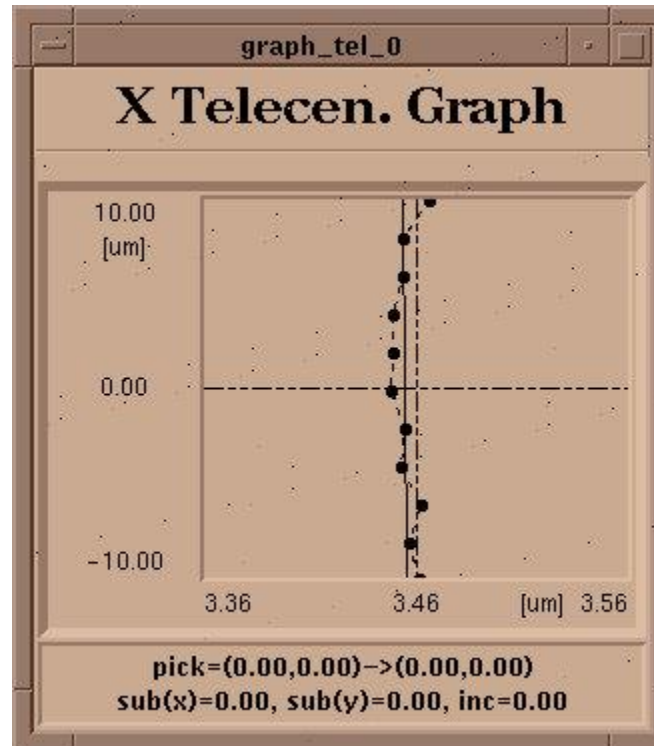
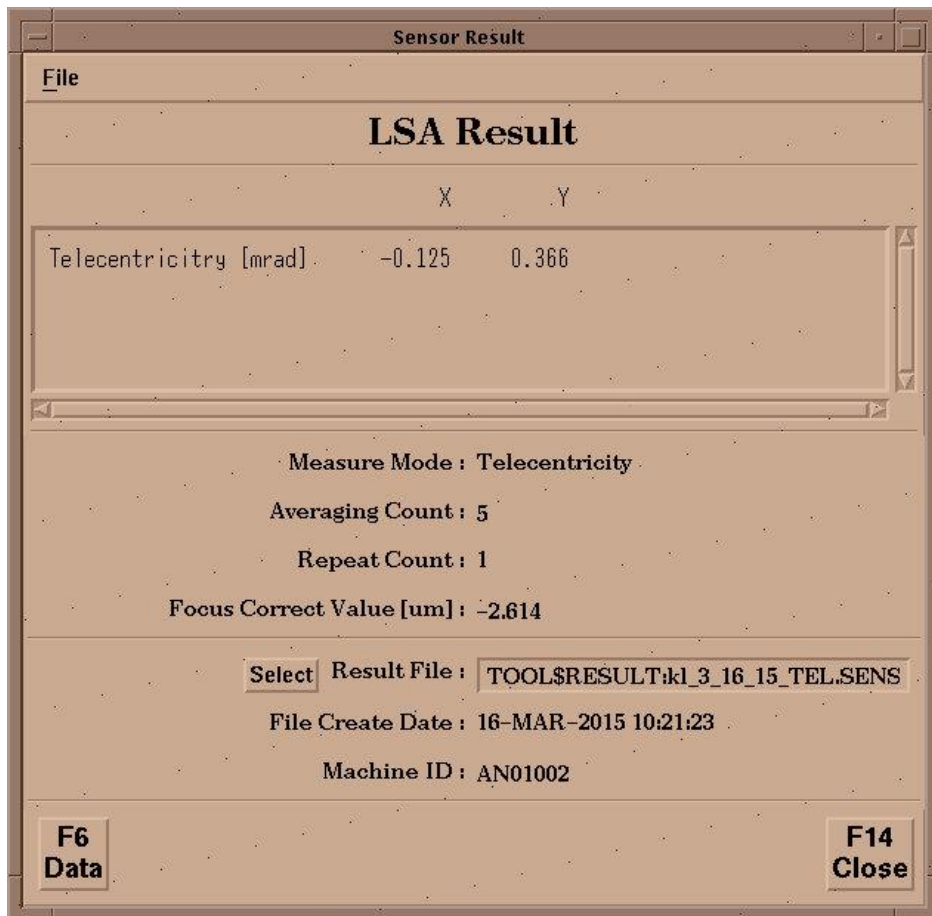
Disp. Mode
 ◆ Detail
 ◇ Summary
 ◇ 3D

F14 Exit

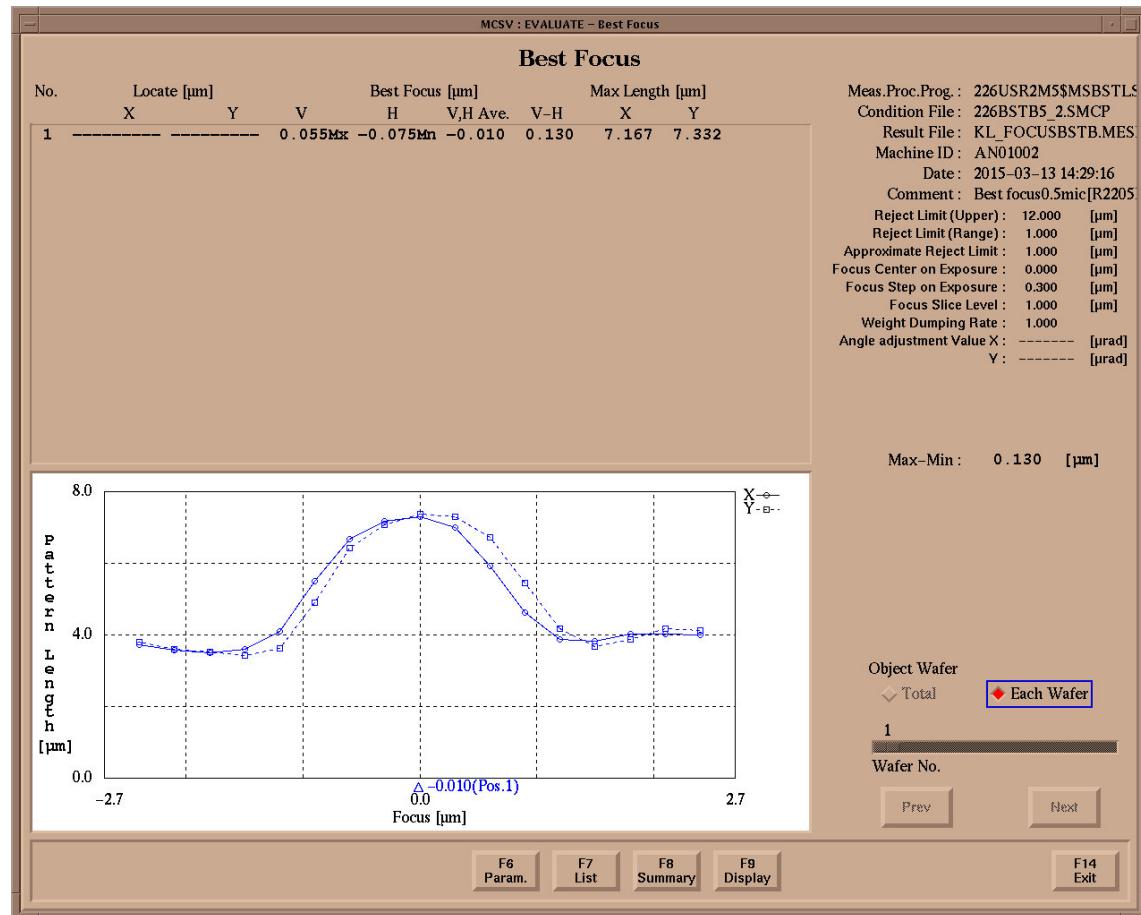
LSA Focus



LSA Tele



Best Focus



Stage Stepping Precision

MCSV : EVALUATE - Stepping

Stepping

Meas.Proc.Prog. : 226USR2A\$MSSTEP Machine ID : AN01002
Condition File : 226STEP_FIA_2.SMCP Date : 2015-04-15 14:38:38
Result File : KL_15_APR_15STEP.MESR
Comment : % Stepping [R2205HA Ver.7.2]

Wafer	Average[μm]		3σ [μm]	
	X	Y	X	Y
1	0.110	0.080	0.024	0.020
Total	0.110	0.080	0.024	0.020

F6 Param. F7 List F9 Ave. map F10 Vec. Map F14 Exit

Reticle Rotation

MCSV : EVALUATE - Reticle Rotation

Reticle Rotation

Meas.Proc.Prog. : 226RRA2\$MSRR Machine ID : AN01002
 Condition File : 226RRA10_FIA_2.SMCP Date : 2015-03-17 13:13:49
 Result File : KL_3_17_2015RRA_2.ME Comment : % Reticle rotation [R2205HA Ver.7.2]

Align. Block	Measured Value					
1	1	0.008	0.008	-0.006	-0.003	-0.003
	2	0.004	0.000	-0.005	-0.003	-0.005
	3	-0.002	-0.001	0.000	0.000	0.002
	4	-0.007	0.002	0.001	-0.001	0.006
	5	-0.017	-0.004	0.000	0.001	0.003
2	1	0.010	0.005	-0.003	-0.005	-0.008
	2	0.002	0.004	-0.001	0.000	-0.004
	3	-0.001	0.002	0.000	0.003	0.005
	4	-0.004	0.001	-0.002	0.003	0.012
	5	-0.009	0.000	0.001	0.005	0.017
3	1	0.008	0.004	-0.004	-0.006	-0.009
	2	0.003	0.005	-0.001	0.001	-0.007
	3	-0.004	0.004	0.002	-0.005	0.000
	4	-0.006	-0.001	-0.001	0.002	0.005
	5	-0.013	-0.003	0.002	0.005	0.013
4	1	0.009	0.003	-0.003	-0.005	-0.009
	2	0.002	-0.001	-0.002	0.000	-0.004
	3	-0.003	-0.007	0.001	0.000	0.004
	4	-0.010	-0.003	-0.002	0.003	0.011
	5	-0.012	-0.004	-0.004	0.009	0.016
5	1	0.004	0.007	-0.003	-0.007	-0.003

Align.	Average
1 :	-0.001 [µm]
2 :	0.001 [µm]
3 :	0.000 [µm]
4 :	0.000 [µm]
5 :	0.000 [µm]
6 :	0.000 [µm]
7 :	-0.001 [µm]
8 :	0.001 [µm]
9 :	0.000 [µm]
10 :	0.000 [µm]

Total

Reticle Rotation : 0.000 [µm]
 : 0.002 [µrad]

Repeatability
 (3σ) : 0.001 [µm]

Each Wafer

Reticle Rotation : 0.000 [µm]
 : 0.002 [µrad]

Repeatability
 (3σ) : 0.001 [µm]

1

Wafer No.

Prev Next

F6 Param. F14 Exit

FIA Overlay

MCSV : EVALUATE - FIA Base Line

FIA Base Line

Meas.Proc.Prog. : 226REG2\$MSEGA2 Machine ID : AN01002
Condition File : 226EGA2_FIA_2.SMCP Date : 2015-04-17 12:01:11
Result File : KL_FIA_2_EGA.MESR Comment : % Baseline check[R2205HA Ver.7.2]

Wafer	Average[μm]		3 σ [μm]	
	X	Y	X	Y
1	0.001	0.000	0.049	0.031

Total 0.001 0.000 0.049 0.031

Map Display Mode Measured Data

Correction Contents Each Wafer

- Offset X Scaling X Orthogonality Shot Scaling
- Offset Y Scaling Y Rotation Shot Rotation

F6 Param F7 List F10 Map F14 Exit

Total Average, 3 σ
◇ EGA Parameter
◇ Shot Analysis

LSA Overlay

MCSV : EVALUATE - FIA Base Line

FIA Base Line

Meas.Proc.Prog. : 226REG2\$MSEGA2 Machine ID : AN01002
Condition File : 226EGA2_FIA_2.SMCP Date : 2015-04-16 16:45:42
Result File : KL_4_EGA.MESR Comment : % Baseline check[R2205HA Ver.7.2]

Wafer	Average[μm]		3 σ [μm]	
	X	Y	X	Y
1	0.003	0.039	0.031	0.059

Total 0.003 0.039 0.031 0.059

Map Display Mode Measured Data

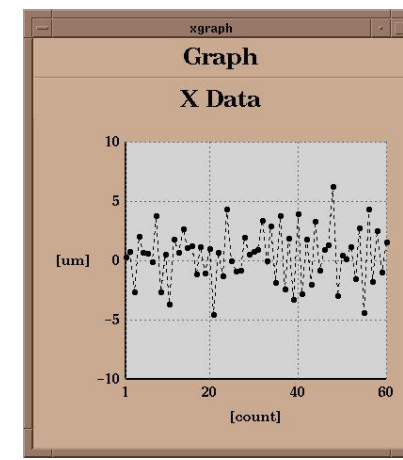
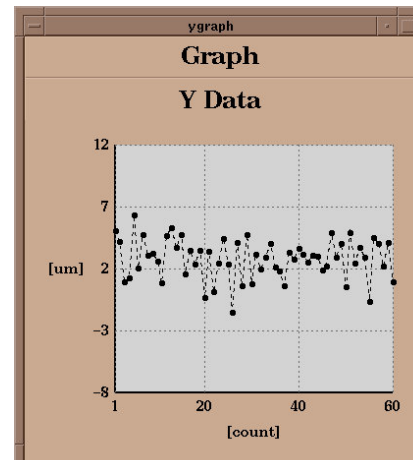
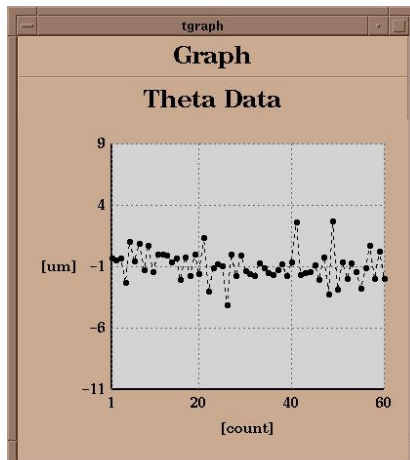
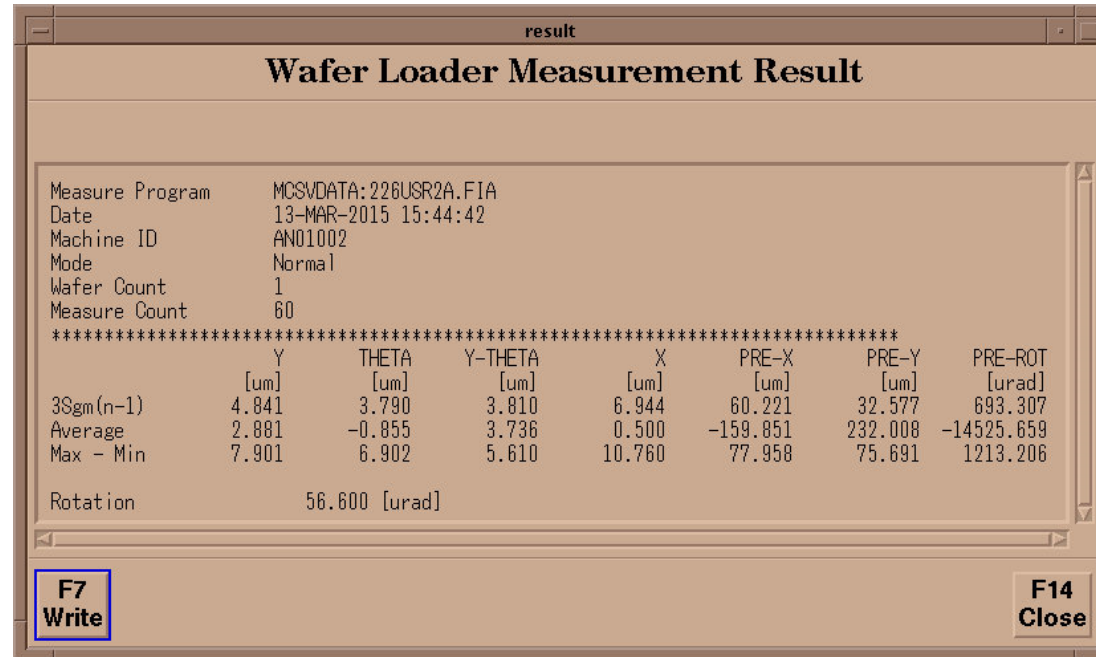
Correction Contents Each Wafer

Offset X Scaling X Orthogonality Shot Scaling
 Offset Y Scaling Y Rotation Shot Rotation

F6 Param F7 List F10 Map F14 Exit

Total Average, 3 σ
◇ EGA Parameter
◇ Shot Analysis

Wafer Loader Repeatability



500 Wafer Run

Nikon Session Manager on USALP1
 Session Applications Options Help

MCSV:Ver.3.41 Operator : NIKON 2015-03-26 10:07
 GOCS:Ver.3.41

Process Program : Processing : 504/500 Exposure
 Comment : Stepping accuracy check [R2205HA Ver.7.2] Reject : 0
 Reticle Name : r2205ha Shot Information

Lot ID :

Exp. Method : Normal
 Alg. Method : 1st EXP

Exposure Time : 0.00 [msec]
 Focus : 0.000 [um]

Correction
 Wafer Offset : 0.000, 0.000 [um]
 Wafer Scaling : 0.000, 0.000 [ppm]
 Wafer Orthog. : 0.000 [urad]
 Wafer Rotation : 0.000 [urad]

Shot Scaling : 0.000 [ppm]
 Shot Rotation : 0.000 [urad]

Illumination System : ID1:0.45 C0.27
 Exposure Field : -----
 Communication : Equipment Offline

PAUSE
 RESUME
 STOP
 HELP

Search : g-EGA : t-EGA : Measure : Shot :

NSR STATE

Initialize or Reset Reticle Transfer Reticle Alignment or BCHK Wafer Transfer Wafer Alignment Exposure or Measure

18:12:05 Wafer Exposure Start
 18:12:17 Wafer Exposure End
 18:12:43 Command Processing End
 18:12:45 EXECUTE Command End

PROCESS SETUP DATA DIAGNOSIS UTILITY SYSTEM
 EXECUTE exposure handle WAFER handle RETICLE COMMUNICAT
 OPERATOR

MCSV>

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Hardware / Software Version Summary

Unit Version Information (AN01002)		
Software Version MCSV : Ver.3.41 OCSV : Ver.63.41 TOOL : Ver.4.01-SR8100	Base Kit BASE : BASE8_105-0007B WLDR : WLDR8_026-V030A RLDR : RLDR8_011-V430A	
Stage Controller ST-82V4.70 STG82V5.20 WS_80V4.30 WS_80V4.30 RS-8PV1.00 RF-8PV1.50 AF-80V8.20 ZT-81V2.30 BL_FPV6.K0 EP-80V5.60 AD_80V2.30	SP Download Count : 12 Date : Thu Mar 5 14:49:37 2015 File : MCSVBUNITSOFT:ST-82.H47	FP Download Count : 7 Date : Thu Mar 5 14:53:42 2015 File : MCSVBUNITSOFT:ST-82.H47
Alignment Controller AL-82V8.40 AL-28V8.80 SG-81V8.60 FL-81V7.50	SP Download Count : 21 Date : Thu Mar 5 15:15:17 2015 File : MCSVBUNITSOFT:AL-82.H84	FP Download Count : 21 Date : Thu Mar 5 15:18:26 2015 File : MCSVBUNITSOFT:AL-82.H84
Operation Panel PA-82V5.80 PA-82V5.80	SP Download Count : 9 Date : Sat Jun 25 18:00:53 2011 File : MCSVBUNITSOFT:PA-82.H58	FP Download Count : 0 Date : File :
Lens Controller LC-85V7.00 LC_82V6.80 IM-X5V4.30	SP Download Count : 9 Date : Fri Oct 20 12:42:27 2000 File : MCSVBUNITSOFT:LC-85.H70	FP Download Count : 7 Date : Fri Oct 20 12:45:03 2000 File : MCSVBUNITSOFT:LC-85.H70
Wafer Loader WR-26V0.30 WL-26V0.30 OF-26V0.20 WLY11V1.70 WR-26V0.30 WL-26V0.30 OF-26V0.20 WLY11V1.70	SP Download Count : 10 Date : Tue Feb 14 16:36:28 2006 File : MCSVBUNITSOFT:WR-26.H03	FP Download Count : 7 Date : Tue Feb 14 16:38:23 2006 File : MCSVBUNITSOFT:WR-26.H03
Reticle Loader RL-11V4.30 RR-W02V4.2 PI-C1V1.70 RL-11V4.30 RR-W02V4.2 PI-C1V1.70	SP Download Count : 2 Date : Sat Aug 2 21:30:24 2008 File : MCSVBUNITSOFT:RL-11.H43	FP Download Count : 0 Date : File :
Cognex ### GPIB Error ###		