

FPA-3000i5+

Fine Pattern Aligner

Installation / Acceptance Data

For: AMI Semiconductor
Belgium BVBA

Product Name	FPA-3000i5+
Serial No.	7072885
Product No.	Stepper 12
Inspection Date	25 July 2007.

Canon

Inspected by: Matt Fordham / Peter Wells.

Canon Europa NV,
Paisley Grove,
Chilwell Meadows Business Park,
Beeston,
Nottingham, NG9 6DJ.

Canon FPA-3000i5+

INSTALLATION CHECK RESULTS

For : AMI Semiconductor

User ID : Stepper 12

Installation Team

Serial No.		7072885
Installation Period	Begin	12-Jul-07
	End	25-Jul-07
Staff In Charge		P.Wells / M.Fordham

Classification		Item		Results	Spec.	Judge	Remark
1 Illuminator Adjustment	Intensity	Normal (63,65)	16106 W/m ²	$\geq 11000\text{W/m}^3$	O	New Lamp With in 50 hours	
		SiA	7497 W/m ²	$\geq 5000\text{W/m}^2$	O		
		SiAll	10699 W/m ²	$\geq 7000\text{W/m}^2$	O		
		SiB	8787 W/m ²	$\geq 7000\text{W/m}^2$	O		
		SP1	16360 W/m ²		O		
		SP2	17153 W/m ²		O		
	Uniformity	Normal (63,65)	0,484 %	$\leq 1.0 \%$	O	New Lamp With in 50 hours	
		SiA	0,619 %	$\leq 1.0\%$	O		
		SiAll	0,569 %	$\leq 1.0\%$	O		
		SiB	0,637 %	$\leq 1.0\%$	O		
		SP1	0,300 %		O		
		SP2	0,331 %		O		
	Light Integrator Accuracy		0,58 %	$\leq 1.0\%$	O	80,250,500,1000msec	
	Masking Blade Accuracy	Total	-68 um	$\leq \pm 100\text{um}$	O		
		Theta	-251 ppm	$\leq 3000\text{ppm}$	O		
		Gray Zone	13 um	Range $\leq 60\text{um}$	O		
2 Auto Focus leveling Performance	Focus Leveling Repeatability (Static)		0,024 um	3 sigma $\leq 0.08\text{um}$	O	Measured 25 Times	
	Leveling Repeatability (Static)	3 sigma X	3,57 ppm	3 sigma $\leq 6\text{ppm}$	O		
		3 sigma Y	3,36 ppm				
	Focus Leveling Repeatability (Dynamic)		0,08 um	3 sigma $\leq 0.10\text{um}$	O	32 Shots 3 Wafers	
	Leveling Repeatability (Dynamic)	3 sigma X	3,3 ppm	3 sigma $\leq 7\text{ppm}$	O		
		3 sigma Y	5,2 ppm				
	Tilt Sensor Uneven Focus		1,77 ppm	$\leq \pm 4\text{ppm}$	O		
	Uneven Focus (TSOC)		3,2 ppm	$\leq \pm 4\text{ppm}$	O		
	Global Tilt Measurement Stability	3 sigma X	1,3 ppm	$\leq 4\text{ppm}$	O		
		3 sigma Y	1,5 ppm				
Global leveling Repeatability	3 sigma X	2,0 ppm	$\leq 8\text{ppm}$	O			
	3 sigma Y	1,7 ppm					

3	iTV Alignment Scope	I Line Defocus Character	Ka	-7 mrad	≤ 15mrad	O				
			Kb	-5 mrad						
			Kc	-4 mrad						
			Ka+Kb	-12 mrad	≤ 15mrad	O				
4	Offset For Rotation	Reticle Rotation Accuracy		1,4 nm	≤ 10nm	O				
		Reticle Rotation Repeatability		6,0 nm	≤ 20nm	O				
		SRC stability		0,086 nm	≤ 0.5ppm	O				
5	Offset For XY Stage	Orthogonality		0,02 ppm	≤ 0.5ppm	O				
		Scaling	X	0,00 ppm	≤ 0.5ppm	O				
			Y	0,02 ppm						
		Bar Mirror's Bow	X	-8,4 nm	≤ 20nm	O				
			Y	-4,6 nm						
6	XY Stage Performance	Stepping	XX	14,5 nm	3-sigma ≤ 35nm	O	Sample 3 Wafers data			
		Accuracy	YY	14,8 nm						
		Stepping Repeatability	X	22,2 nm	3 sigma ≤ 30nm	O	Sample 1 Wafer data			
			Y	12,0 nm						
7	Lens Heating	Lens Heating NA:0.63 Sigma:0.65	Focus	0,10 um	≤ 0.30um	O				
		Lens Heating NA:0.52 Sigma:0.60	Focus	0,05 um	≤ 0.30um	O				
	Lens Performance	Distortion Normal (63,65)	DX	0,029 um	DX,DY ≤ ±0.040um	O				
			DY	0,023 um						
		CD DOF	0.35um L&S	1,26 um	≥ 0.9um	O				
		T/B DOF		0,64 um	≥ 0.6um	O				
		Field Curvature		-0,05 um	≤ 0.25um	O				
		ISW		-0,05 um	≤ 0.25um	O				
		IFD		0,14 um	≤ 0.35um	O				
		Astigmatism		0,08 um	≤ 0.20um	O				
		CD Uniformity		9,6 nm	≤ 35nm	O				
		8	Pre Alignment Performance	Mechanical Pre Alignment Accuracy	XI	2,1 um		3 sigma ≤ 30um	O	
					Xr	2,4 um				
YI	3,2 um									
Yr	3,3 um									
TV Pre Alignment Accuracy	X			1,86 um	≤ 3 um	O	Max X +Max DR			
Y	0,295 um									

9	B/C Scope Performance	TOC Difference	B/S	5 nm	Ave. $\leq 5\text{nm}$	O	Mode 5 - Mode 3
			C/S	-3 nm			
	B Scope Defocus Character		Ka	8 mrad	$\leq \pm 20\text{mrad}$	O	Mode 1
			Kb	8 mrad			
			Kc	0 mrad	$\leq \pm 7\text{mrad}$	O	Mode 2
	B Scope Defocus Character		Ka	4 mrad	$\leq \pm 20\text{mrad}$	O	Mode 3
			Kb	-4 mrad			
			Kc	-4 mrad	$\leq \pm 7\text{mrad}$	O	Mode 1
	B Scope Defocus Character		Ka	-1 mrad	$\leq \pm 20\text{mrad}$	O	Mode 2
			Kb	-3 mrad			
			Kc	0 mrad	$\leq \pm 7\text{mrad}$	O	Mode 3
	C Scope Defocus Character		Ka	-3 mrad	$\leq \pm 20\text{mrad}$	O	Mode 1
			Kb	2 mrad			
			Kc	2 mrad	$\leq \pm 7\text{mrad}$	O	Mode 2
	C Scope Defocus Character		Ka	9 mrad	$\leq \pm 20\text{mrad}$	O	Mode 3
			Kb	16 mrad			
			Kc	3 mrad	$\leq \pm 7\text{mrad}$	O	Mode 1
	C Scope Defocus Character		Ka	1 mrad	$\leq \pm 20\text{mrad}$	O	Mode 2
			Kb	4 mrad			
			Kc	1 mrad	$\leq \pm 7\text{mrad}$	O	Mode 3
	B Scope Waveform		line 2	-1,75 %	$\leq \pm 3\%$	O	Mode 3
			line 3	-1,77 %			
	C Scope Waveform		line 2	1,79 %	$\leq \pm 3\%$	O	Mode 3
			line 3	1,62 %			
	TIS		B Scope	1 nm	$\leq \pm 10 \text{ nm}$	O	Mode 3
			C Scope	-7 nm			
	Baseline Stability		BLX	6 nm	3 sigma $\leq 30\text{nm}$	O	Measured 50 Times
			BLY	8 nm			
10	ALFC	Measurement Repeatability		0,049 μm	3 sigma $\leq 0.1\mu\text{m}$	O	L Side ONLY
11	Auto Alignment Accuracy	He-Ne AGA Overlay	X	44 nm	$ m +3 \text{ sigma}$ $\leq 90\text{nm}$	O	2 Pts./32 shot 5 wafers
		Mode 1 - Stp 12 to Stp 9	Y	70 nm			
		He-Ne AGA Overlay	X	46 nm	$ m +3 \text{ sigma}$ $\leq 90\text{nm}$	O	2 Pts./32 shot 5 wafers
		Mode 2 - Stp 12 to Stp 9	Y	65 nm			
		Broad Band AGA Overlay	X	69 nm	$ m +3 \text{ sigma}$ $\leq 90\text{nm}$	O	2 Pts./32 shot 5 wafers
		Mode 4 - Stp 12 to Stp 9	Y	80 nm			
12	Throughput		32shot 90msec shutter time	129 wph	$\geq 108 \text{ wafers / hour}$	O	Tilt On
13	Reticle Alignment		ROC	0,002 μm	$\leq 0.01\mu\text{m}$	O	
14	Open Frame			Clear	Clear	O	1.02eth
15	Reliability	Wafer Cycling		500	No Trouble	O	500 Wfs.With AGA
		Reticle Cycling		75	No Trouble	O	75Reticles

**Item: ILLUMINATION UNIFORMITY
& INTENSITY
for STANDARD 6365**

Date: 18-Jul-07

Engineer: P.Wells

Machine No.: 7072885

User ID: Stepper 12

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	99,2	99,2	99,4	99,4	99,4	99,5	99,5	99,5	99,5	99,6	99,5	99,5	99,5
[2]	99,3	99,3	99,4	99,5	99,5	99,5	99,5	99,6	99,6	99,6	99,6	99,6	99,6
[3]	99,3	99,4	99,4	99,4	99,5	99,5	99,5	99,6	99,6	99,6	99,6	99,7	99,6
[4]	99,3	99,3	99,4	99,4	99,4	99,5	99,5	99,6	99,6	99,6	99,7	99,7	99,7
[5]	99,3	99,4	99,4	99,5	99,5	99,5	99,5	99,4	99,6	99,6	99,7	99,7	99,8
[6]	99,3	99,4	99,4	99,5	99,5	99,5	99,5	99,6	99,6	99,7	99,7	99,7	99,8
[7]	99,3	99,3	99,3	99,5	99,5	99,5	99,6	99,6	99,7	99,7	99,7	99,7	99,8
[8]	99,3	99,4	99,5	99,5	99,5	99,6	99,7	99,7	99,7	99,7	99,8	99,8	99,8
[9]	99,3	99,5	99,5	99,1	99,6	99,6	99,7	99,8	99,8	99,8	99,8	99,8	99,8
[10]	99,4	99,5	99,5	99,6	99,6	99,6	99,7	99,8	99,8	99,9	99,8	99,8	99,8
[11]	99,5	99,5	99,6	99,6	99,7	99,7	99,8	99,8	99,9	100,0	100,0	99,9	99,9
[12]	99,6	99,6	99,6	99,7	99,8	99,8	99,8	99,9	99,9	99,9	100,0	100,0	100,0
[13]	99,6	99,7	99,7	99,8	99,8	99,8	99,9	99,9	99,9	99,9	100,0	100,0	100,0
[14]	99,6	99,7	99,7	99,8	99,8	99,9	99,9	99,9	99,9	99,9	100,0	100,0	100,0
[15]	99,6	99,7	99,7	99,8	99,8	99,8	99,9	99,9	99,9	99,9	100,0	100,0	100,1
[16]	99,6	99,7	99,7	99,8	99,8	99,8	99,9	99,9	99,9	99,9	100,0	100,0	100,0
[17]	99,6	99,7	99,7	99,7	99,8	99,8	99,9	99,8	99,9	99,9	99,9	99,9	100,0
[18]	99,6	99,6	99,7	99,7	99,7	99,8	99,7	99,8	99,8	99,8	99,8	99,8	99,9
[19]	99,5	99,6	99,7	99,6	99,7	99,7	99,7	99,7	99,7	99,7	99,7	99,7	99,8
[20]	99,5	99,5	99,5	99,5	99,5	99,5	99,5	99,6	99,6	99,6	99,6	99,6	99,7
[21]	99,4	99,4	99,4	99,4	99,4	99,4	99,4	99,4	99,4	99,4	99,4	99,4	99,5

	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
[1]	99,5	99,5	99,6	99,6	99,5	99,5	99,4	99,3
[2]	99,7	99,6	99,7	99,6	99,6	99,6	99,5	99,4
[3]	99,7	99,7	99,8	99,7	99,7	99,7	99,6	99,5
[4]	99,8	99,8	99,8	99,8	99,7	99,7	99,7	99,5
[5]	99,8	99,8	99,9	99,8	99,8	99,7	99,7	99,6
[6]	99,8	99,9	99,9	99,8	99,8	99,8	99,7	99,6
[7]	99,9	99,8	99,9	99,9	99,9	99,8	99,7	99,6
[8]	99,9	99,9	99,9	99,9	99,9	99,8	99,7	99,6
[9]	99,9	99,9	99,9	99,9	99,9	99,8	99,8	99,6
[10]	99,9	100,0	99,9	99,9	99,9	99,8	99,8	99,7
[11]	100,0	100,0	100,0	99,9	99,9	99,9	99,8	99,7
[12]	100,1	100,1	100,0	100,0	100,0	99,9	99,9	99,8
[13]	100,1	100,1	100,0	100,0	100,0	100,0	99,9	99,8
[14]	100,1	100,1	100,0	100,0	100,0	99,9	99,9	99,8
[15]	100,0	100,1	100,0	100,0	99,9	99,9	99,9	99,8
[16]	100,0	100,0	100,0	99,9	99,9	99,9	99,9	99,7
[17]	99,9	99,9	99,8	99,8	99,7	99,8	99,7	99,6
[18]	99,8	99,8	99,7	99,6	99,6	99,6	99,7	99,5
[19]	99,7	99,7	99,6	99,5	99,5	99,6	99,5	99,4
[20]	99,5	99,5	99,5	99,5	99,5	99,5	99,4	99,3
[21]	99,4	99,3	99,3	99,3	99,3	99,2	99,2	99,2

[file information]

Region x	20.0 (mm)	illumination mode	Standard
Region y	22.6 (mm)	Stopper	Multiple
Pitch x	1.00 (mm)	2nd ZOOM LENS	100,00
Pitch y	1.13 (mm)	Compensator 2 value	4
IUC value	16106	Direction	-109,4
UC0	16092		
IUC max	100.104		
IUC MIN	99.141		
IUC val	0.484		

INTENSITY: 16106 [W/m²]
UNIFORMITY: 0.484 [%]

Item: ILLUMINATION UNIFORMITY
& INTENSITY
for SIA

Date: 18-Jul-07

Engineer: P.Wells

Machine No.: 7072885

User ID: Stepper 12

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	99.6	99.8	100.0	100.1	100.2	100.2	100.2	100.2	100.2	100.2	100.1	100.2	100.2
[2]	99.9	100.1	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.2	100.2
[3]	100.2	100.3	100.4	100.4	100.4	100.4	100.4	100.3	100.3	100.3	100.3	100.3	100.3
[4]	100.3	100.5	100.4	100.3	100.4	100.3	100.3	100.3	100.3	100.3	100.3	100.3	100.3
[5]	100.3	100.5	100.5	100.4	100.3	100.3	100.3	100.1	100.2	100.1	100.1	100.2	100.2
[6]	100.3	100.4	100.4	100.3	100.2	100.2	100.2	100.0	100.0	99.9	99.9	99.9	100.0
[7]	100.3	100.3	100.3	100.3	100.2	100.1	100.0	99.9	99.7	99.6	99.6	99.7	99.7
[8]	100.2	100.3	100.3	100.2	100.1	100.0	99.8	99.6	99.4	99.5	99.4	99.5	99.5
[9]	100.2	100.2	100.2	100.0	100.0	99.8	99.6	99.4	99.4	99.6	99.8	99.7	99.3
[10]	100.2	100.2	100.2	100.1	99.9	99.7	99.5	99.4	99.8	100.0	99.9	100.0	99.7
[11]	100.2	100.2	100.2	100.1	99.9	99.7	99.5	99.4	99.9	100.0	100.0	100.1	99.9
[12]	100.2	100.2	100.2	100.1	99.9	99.7	99.5	99.3	99.8	99.9	99.9	100.0	99.8
[13]	100.2	100.2	100.2	100.1	100.0	99.8	99.6	99.4	99.3	99.7	99.7	99.6	99.4
[14]	100.2	100.3	100.3	100.2	100.1	99.9	99.8	99.6	99.4	99.4	99.4	99.4	99.5
[15]	100.2	100.3	100.3	100.2	100.2	100.1	99.9	99.8	99.7	99.6	99.6	99.7	99.8
[16]	100.3	100.3	100.3	100.4	100.3	100.2	100.1	100.0	100.0	99.9	99.9	99.9	100.0
[17]	100.2	100.3	100.4	100.4	100.4	100.3	100.3	100.3	100.2	100.2	100.1	100.2	100.2
[18]	100.2	100.4	100.4	100.4	100.4	100.4	100.3	100.3	100.3	100.3	100.3	100.3	100.3
[19]	100.0	100.3	100.4	100.4	100.4	100.4	100.4	100.3	100.3	100.3	100.3	100.3	100.3
[20]	99.9	100.2	100.3	100.3	100.4	100.4	100.4	100.3	100.3	100.3	100.2	100.3	100.2
[21]	99.6	99.9	100.0	100.1	100.2	100.2	100.2	100.3	100.3	100.2	100.1	100.1	100.1

	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
[1]	100.2	100.2	100.2	100.1	100.1	100.0	99.8	99.5
[2]	100.3	100.3	100.4	100.4	100.3	100.3	100.1	99.9
[3]	100.4	100.3	100.4	100.4	100.4	100.4	100.4	100.1
[4]	100.3	100.4	100.5	100.5	100.5	100.5	100.5	100.3
[5]	100.2	100.3	100.4	100.4	100.5	100.5	100.5	100.4
[6]	100.2	100.2	100.4	100.4	100.5	100.5	100.5	100.4
[7]	100.0	100.1	100.2	100.3	100.4	100.5	100.5	100.3
[8]	99.7	99.9	100.1	100.3	100.4	100.4	100.4	100.3
[9]	99.5	99.7	100.0	100.2	100.3	100.4	100.4	100.3
[10]	99.3	99.6	99.8	100.1	100.3	100.4	100.3	100.3
[11]	99.3	99.5	99.8	100.1	100.3	100.3	100.4	100.3
[12]	99.3	99.6	99.9	100.1	100.3	100.3	100.3	100.1
[13]	99.5	99.7	99.9	100.1	100.3	100.3	100.3	100.2
[14]	99.7	99.9	100.1	100.2	100.3	100.3	100.3	100.2
[15]	99.9	100.1	100.2	100.3	100.3	100.3	100.3	100.2
[16]	100.1	100.2	100.3	100.3	100.3	100.3	100.3	100.2
[17]	100.2	100.3	100.2	100.3	100.3	100.3	100.3	100.1
[18]	100.3	100.3	100.3	100.4	100.3	100.3	100.3	100.1
[19]	100.3	100.3	100.2	100.3	100.2	100.2	100.2	99.9
[20]	100.2	100.2	100.2	100.2	100.2	100.1	100.0	99.7
[21]	100.1	100.1	100.0	100.1	99.9	99.9	99.7	99.4

[file information]

Region x 20.0 (mm)
Region y 22.6 (mm)
Pitch x 1.00 (mm)
Pitch y 1.13 (mm)
IUC value 7497
UCO 7984
IUC max 100.545
IUC MIN 99.309
IUC val 0.619

illumination mode Standard

Stopper SiA

2nd ZOOM LENS 50,90

0

Compensator 2 value

Direction -80,1

INTENSITY: 7497 [W/m²]

UNIFORMITY: 0.619 [%]

**Item: ILLUMINATION UNIFORMITY
& INTENSITY
for SIA2**

Date: 18-Jul-07
Engineer: P.Wells
Machine No.: 7072885
User ID: Stepper 12

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	99,0	99,8	100,0	100,1	100,1	100,1	100,1	100,1	100,1	100,1	100,0	100,0	100,0
[2]	99,9	100,1	100,2	100,3	100,3	100,2	100,2	100,2	100,2	100,1	100,1	100,0	100,1
[3]	100,1	100,2	100,3	100,3	100,3	100,3	100,3	100,2	100,2	100,2	100,1	100,1	100,0
[4]	100,2	100,3	100,3	100,3	100,2	100,2	100,2	100,2	100,2	100,1	100,1	100,1	100,1
[5]	100,2	100,3	100,3	100,3	100,2	100,2	100,2	100,0	100,1	100,0	99,9	100,0	99,9
[6]	100,1	100,2	100,2	100,2	100,1	100,1	100,1	100,0	99,9	99,8	99,5	99,5	99,5
[7]	100,1	100,1	100,2	100,1	100,1	100,0	99,9	99,7	99,5	99,4	99,3	99,3	99,3
[8]	100,0	100,1	100,1	100,1	100,0	99,9	99,7	99,5	99,4	99,2	99,6	99,8	99,7
[9]	100,0	100,0	100,0	99,8	99,9	99,7	99,5	99,4	99,2	99,6	99,8	99,7	99,2
[10]	100,0	100,0	100,0	100,0	99,8	99,6	99,4	99,3	99,7	99,9	99,9	99,9	99,7
[11]	100,0	100,1	100,1	100,0	99,8	99,6	99,4	99,3	99,9	100,0	100,0	100,0	99,9
[12]	100,0	100,1	100,0	100,0	99,8	99,6	99,4	99,3	99,7	99,9	99,9	99,9	99,8
[13]	100,0	100,1	100,0	100,0	99,8	99,7	99,5	99,4	99,3	99,5	99,7	99,6	99,3
[14]	100,0	100,1	100,0	100,0	100,0	99,8	99,7	99,5	99,3	99,3	99,3	99,4	99,5
[15]	100,0	100,1	100,1	100,0	100,0	99,9	99,8	99,7	99,6	99,5	99,5	99,6	99,7
[16]	100,0	100,0	100,1	100,1	100,0	100,0	100,0	99,9	99,8	99,8	99,7	99,8	99,9
[17]	100,0	100,1	100,1	100,1	100,1	100,0	100,1	100,0	100,0	100,0	100,0	100,0	100,1
[18]	100,0	100,1	100,1	100,1	100,1	100,1	100,1	100,0	100,0	100,0	100,0	100,1	100,1
[19]	99,9	100,0	100,1	100,1	100,1	100,1	100,1	100,1	100,0	100,1	100,1	100,1	100,1
[20]	99,7	99,9	100,0	100,0	100,0	100,1	100,1	100,1	100,0	100,0	100,0	100,1	100,0
[21]	99,5	99,7	99,8	99,9	99,9	99,9	100,0	100,0	100,0	99,9	99,9	100,0	99,9

	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
[1]	100,0	100,0	100,0	99,9	100,0	99,9	99,7	99,8
[2]	100,1	100,1	100,1	100,1	100,1	100,1	100,0	99,8
[3]	100,1	100,1	100,2	100,2	100,2	100,2	100,2	100,0
[4]	100,0	100,1	100,2	100,2	100,2	100,3	100,3	100,2
[5]	100,0	100,0	100,1	100,1	100,2	100,3	100,3	100,1
[6]	99,9	100,0	100,1	100,1	100,1	100,2	100,2	100,1
[7]	99,7	99,8	99,9	100,1	100,1	100,1	100,2	100,1
[8]	99,5	99,7	99,9	100,0	100,1	100,1	100,2	100,1
[9]	99,3	99,5	99,8	100,0	100,1	100,1	100,1	100,1
[10]	99,2	99,4	99,7	99,9	100,1	100,1	100,1	100,1
[11]	99,2	99,4	99,7	99,9	100,1	100,2	100,2	100,2
[12]	99,3	99,5	99,8	100,0	100,2	100,2	100,2	100,1
[13]	99,5	99,6	99,9	100,1	100,2	100,2	100,2	100,2
[14]	99,6	99,8	100,0	100,1	100,2	100,3	100,2	100,2
[15]	99,8	100,0	100,1	100,2	100,2	100,3	100,2	100,1
[16]	100,0	100,1	100,2	100,2	100,3	100,3	100,3	100,2
[17]	100,1	100,2	100,1	100,2	100,2	100,3	100,3	100,2
[18]	100,1	100,2	100,2	100,2	100,2	100,2	100,3	100,1
[19]	100,1	100,2	100,1	100,2	100,1	100,1	100,1	99,9
[20]	100,1	100,1	100,1	100,1	100,1	100,1	99,9	99,7
[21]	100,0	100,0	100,0	100,0	99,8	99,8	99,7	99,4

[file information]

Region x 20.0 (mm)
Region y 22.6 (mm)
Pitch x 1.00 (mm)
Pitch y 1.13 (mm)
IUC value 10699
UC0 11233
IUC max 100.332
IUC MIN 99.196
IUC val 0.569

illumination mode Standard
Stopper SiA2
2nd ZOOM LENS 44,00
20
Compensator 2 value
Direction -100

INTENSITY: 10699 [W/m²]
UNIFORMITY: 0.569 [%]

Item: ILLUMINATION UNIFORMITY
& INTENSITY
for SiB

Date: 18-Jul-07

Engineer: P.Wells

Machine No.: 7072885

User ID: Stepper 12

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	99,4	99,6	99,6	100,0	100,0	100,0	100,1	100,1	100,0	100,0	100,0	100,1	100,1
[2]	99,8	100,0	100,1	100,2	100,2	100,2	100,2	100,2	100,2	100,2	100,2	100,1	100,2
[3]	100,0	100,2	100,3	100,3	100,3	100,3	100,3	100,3	100,3	100,3	100,3	100,3	100,3
[4]	100,1	100,3	100,4	100,4	100,2	100,3	100,3	100,4	100,3	100,3	100,3	100,3	100,3
[5]	100,2	100,4	100,4	100,4	100,4	100,4	100,3	100,2	100,3	100,3	100,3	100,3	100,3
[6]	100,2	100,3	100,4	100,4	100,3	100,3	100,3	100,3	100,2	100,3	100,3	100,3	100,3
[7]	100,2	100,2	100,4	100,4	100,3	100,3	100,2	100,1	99,9	99,7	99,7	99,7	99,8
[8]	100,1	100,2	100,3	100,3	100,3	100,2	100,0	99,8	99,6	99,4	99,4	99,4	99,4
[9]	100,2	100,2	100,3	100,1	100,2	100,0	99,7	99,5	99,4	99,8	100,0	99,7	99,2
[10]	100,1	100,3	100,2	100,3	100,1	99,9	99,6	99,4	100,0	100,1	100,0	100,1	99,8
[11]	100,2	100,3	100,2	100,2	100,1	99,8	99,5	99,4	100,0	100,1	100,0	100,1	100,0
[12]	100,2	100,3	100,3	100,2	100,0	99,8	99,5	99,3	99,9	100,0	100,0	100,0	99,8
[13]	100,2	100,3	100,3	100,2	100,1	99,9	99,6	99,4	99,3	99,6	99,8	99,6	99,3
[14]	100,3	100,3	100,3	100,3	100,2	100,0	99,8	99,5	99,3	99,3	99,3	99,3	99,4
[15]	100,3	100,3	100,4	100,2	100,2	100,1	99,9	99,7	99,6	99,5	99,5	99,6	99,7
[16]	100,2	100,3	100,3	100,3	100,2	100,1	100,1	100,0	99,8	99,8	99,8	99,9	100,0
[17]	100,3	100,3	100,3	100,3	100,2	100,2	100,2	100,1	100,1	100,1	100,0	100,1	100,2
[18]	100,2	100,3	100,3	100,3	100,3	100,2	100,2	100,2	100,1	100,1	100,1	100,2	100,2
[19]	100,1	100,2	100,3	100,3	100,2	100,2	100,2	100,2	100,1	100,1	100,1	100,1	100,2
[20]	99,9	100,1	100,2	100,1	100,2	100,1	100,1	100,1	100,1	100,1	100,1	100,1	100,1
[21]	99,7	99,9	100,0	100,0	100,0	100,0	100,0	100,0	100,0	100,0	99,9	100,0	100,0

	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
[1]	100,2	100,2	100,2	100,2	100,1	100,1	99,9	99,7
[2]	100,3	100,3	100,4	100,4	100,3	100,3	100,2	99,9
[3]	100,3	100,3	100,4	100,4	100,4	100,4	100,3	100,1
[4]	100,3	100,4	100,4	100,4	100,4	100,4	100,3	100,1
[5]	100,3	100,3	100,3	100,3	100,4	100,3	100,3	100,1
[6]	100,1	100,2	100,2	100,2	100,2	100,3	100,2	100,0
[7]	99,9	100,0	100,2	100,2	100,2	100,1	100,1	100,0
[8]	99,6	99,8	100,0	100,1	100,1	100,1	100,1	100,0
[9]	99,4	99,6	99,8	100,0	100,1	100,1	100,0	100,0
[10]	99,2	99,4	99,7	99,9	100,1	100,1	100,1	100,0
[11]	99,2	99,3	99,7	99,9	100,0	100,1	100,2	100,0
[12]	99,2	99,4	99,8	100,0	100,1	100,1	100,1	100,0
[13]	99,4	99,6	99,9	100,1	100,2	100,2	100,2	100,1
[14]	99,6	99,9	100,1	100,3	100,3	100,3	100,2	100,2
[15]	99,9	100,1	100,3	100,3	100,3	100,4	100,3	100,2
[16]	100,1	100,2	100,3	100,3	100,4	100,4	100,4	100,3
[17]	100,2	100,3	100,2	100,3	100,4	100,4	100,4	100,3
[18]	100,2	100,3	100,3	100,4	100,4	100,3	100,4	100,2
[19]	100,2	100,3	100,3	100,3	100,3	100,4	100,3	100,1
[20]	100,1	100,2	100,3	100,3	100,3	100,3	100,1	100,0
[21]	100,0	100,1	100,1	100,1	100,0	100,0	99,9	99,6

[file information]

Region x 20.0 (mm) illumination mode Standard
Region y 22.6 (mm) Stopper SiB
Pitch x 1.00 (mm) 2nd ZOOM LENS 67,20
Pitch y 1.13 (mm) Compensator 2 value 6
IUC value 8787 Direction 136
UC0 9281
IUC max 100.440
IUC MIN 99.169
IUC val 0.637

INTENSITY: 8787 [W/m²]
UNIFORMITY: 0.637 [%]

**Item: ILLUMINATION UNIFORMITY
& INTENSITY
for SP1**

Date: 18-Jul-07

Engineer: P.Wells

Machine No.: 7072885

User ID: Stepper 12

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	0.0	99.8	99.9	99.9	99.8	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8
[2]	99.8	99.9	100.0	99.9	100.0	99.9	100.0	99.9	99.9	99.9	99.8	99.9	99.8
[3]	99.9	99.9	99.9	100.0	100.0	100.0	99.9	99.9	99.9	99.9	99.9	99.9	99.9
[4]	99.9	100.0	100.0	100.0	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
[5]	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.9	99.8	99.9	99.8	99.8	99.9
[6]	100.0	100.0	100.0	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.8	99.8	99.8
[7]	99.9	99.9	99.9	99.8	99.9	99.9	99.9	99.9	99.9	99.8	99.8	99.8	99.8
[8]	99.9	99.8	99.9	99.9	99.9	99.8	99.9	99.8	99.8	99.8	99.8	99.8	99.8
[9]	99.8	99.8	99.9	99.9	99.5	99.8	99.9	99.9	99.8	99.8	99.8	99.8	99.8
[10]	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
[11]	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.9	99.8	99.7
[12]	99.8	99.8	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
[13]	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.8	99.8
[14]	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.7	99.8
[15]	99.8	99.8	99.8	99.8	99.8	99.9	99.8	99.8	99.8	99.7	99.7	99.7	99.8
[16]	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.7	99.8
[17]	99.8	99.7	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
[18]	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
[19]	99.8	99.8	99.8	99.8	99.8	99.8	99.9	99.8	99.8	99.8	99.8	99.8	99.8
[20]	99.9	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
[21]	99.9	99.8	99.8	99.8	99.8	99.8	99.7	99.8	99.8	99.7	99.7	99.7	99.7

	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
[1]	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.8
[2]	99.9	99.9	99.9	100.0	100.0	100.0	100.0	100.0
[3]	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0
[4]	99.9	100.0	99.9	100.0	100.0	100.0	100.0	100.1
[5]	99.9	99.9	100.0	100.0	100.0	100.0	100.0	100.1
[6]	99.8	99.9	99.9	99.9	100.0	100.0	100.0	100.0
[7]	99.9	99.9	99.9	99.9	100.0	100.0	100.0	100.0
[8]	99.8	99.9	99.9	99.9	99.9	100.0	99.9	99.9
[9]	99.8	99.8	99.9	99.9	99.9	99.9	99.9	99.9
[10]	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9
[11]	99.7	99.8	99.9	99.9	99.9	99.9	99.9	99.9
[12]	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9
[13]	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.9
[14]	99.8	99.9	99.9	99.9	99.9	99.9	99.9	99.8
[15]	99.8	99.8	99.9	99.8	99.8	99.9	99.9	99.9
[16]	99.8	99.8	99.8	99.8	99.8	99.9	99.9	99.9
[17]	99.7	99.8	99.8	99.8	99.8	99.8	99.9	99.9
[18]	99.8	99.8	99.8	99.8	99.7	99.7	99.9	99.9
[19]	99.8	99.8	99.8	99.8	99.8	99.8	99.9	99.9
[20]	99.8	99.8	99.8	99.9	99.9	99.9	99.9	99.9
[21]	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.8

[file information]

Region x	20.0 (mm)	illumination mode	Special 1
Region y	22.6 (mm)	Stopper	Multiple
Pitch x	1.00 (mm)	INPUT LENS	none
Pitch y	1.13 (mm)	1st ZOOM LENS	28,3 %
IUC value	16360	2nd ZOOM LENS	70,6 %
UC0	15957	Compensator 2 value	16 %
IUC max	100.056	Direction	-59,1 Degrees
IUC MIN	99.457		
IUC val	0.300		

INTENSITY: 16360 [W/m²]
UNIFORMITY: 0.300 [%]

Date : 18-Jul-07

**Item: ILLUMINATION UNIFORMITY
&INTENSITY
for SP2**

Engineer: P.Wells

Machine No.: 7072885

User ID: Stepper 12

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]
[1]	99,7	99,7	99,8	99,8	99,9	99,9	99,9	100,0	99,9	99,9	99,9	99,8	99,9
[2]	99,7	99,9	99,9	99,9	100,0	100,0	100,1	100,0	100,0	100,0	99,9	100,0	99,9
[3]	99,8	99,9	100,0	100,0	100,0	100,1	100,1	100,1	100,1	100,0	100,0	100,0	100,0
[4]	99,9	99,9	100,0	100,1	100,0	100,0	100,0	100,1	100,1	100,0	100,0	99,9	99,9
[5]	100,0	99,9	100,0	100,0	100,0	100,1	100,1	100,0	99,9	99,9	99,9	99,9	99,9
[6]	100,0	99,8	99,9	100,0	100,1	100,0	100,0	100,0	100,0	100,0	99,9	99,9	99,8
[7]	99,9	99,8	99,9	99,8	100,0	100,0	99,9	99,9	99,9	99,9	99,8	99,8	99,8
[8]	99,9	99,8	99,9	99,9	99,9	99,9	100,0	99,9	99,9	99,9	99,8	99,8	99,8
[9]	99,8	99,8	99,9	99,9	99,4	99,9	99,9	99,9	99,9	99,8	99,8	99,8	99,8
[10]	99,8	99,8	99,8	99,9	99,9	99,8	99,8	99,8	99,8	99,9	99,9	99,8	99,7
[11]	99,8	99,8	99,9	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,9	99,9	99,8
[12]	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8
[13]	99,7	99,8	99,8	99,9	99,9	99,8	99,8	99,8	99,7	99,7	99,7	99,7	99,7
[14]	99,7	99,8	99,9	99,8	99,8	99,8	99,8	99,8	99,8	99,6	99,6	99,7	99,7
[15]	99,8	99,8	99,9	99,8	99,8	99,8	99,8	99,8	99,8	99,7	99,6	99,7	99,7
[16]	99,7	99,8	99,9	99,9	99,9	99,8	99,8	99,8	99,7	99,7	99,7	99,7	99,7
[17]	99,7	99,8	99,9	99,9	99,9	99,9	99,9	99,8	99,8	99,7	99,7	99,7	99,7
[18]	99,8	99,8	100,0	99,9	99,9	99,8	99,8	99,8	99,8	99,7	99,7	99,7	99,7
[19]	99,8	99,8	99,8	99,8	99,9	99,9	99,9	99,8	99,8	99,8	99,7	99,7	99,7
[20]	99,7	99,8	99,9	99,9	99,9	99,9	99,8	99,8	99,8	99,8	99,8	99,8	99,7
[21]	99,7	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,7	99,7	99,7	99,6

	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
[1]	99,8	99,8	99,8	99,9	99,9	99,9	99,9	99,8
[2]	99,9	99,9	100,0	100,0	100,0	100,0	100,0	99,9
[3]	99,9	100,0	100,0	100,0	100,1	100,0	100,0	100,0
[4]	100,0	100,0	100,0	100,1	100,1	100,0	100,1	100,1
[5]	99,9	100,0	100,0	100,0	100,0	100,1	100,1	100,1
[6]	99,9	99,9	100,0	100,0	100,0	100,0	100,0	100,0
[7]	99,9	100,0	99,9	99,9	100,0	100,0	100,0	100,0
[8]	99,8	99,9	99,9	99,9	99,9	100,0	99,9	99,9
[9]	99,8	99,8	99,9	99,9	99,9	99,9	99,9	99,9
[10]	99,7	99,8	99,8	99,8	99,8	99,9	99,9	99,8
[11]	99,7	99,8	99,8	99,8	99,8	99,8	99,8	99,8
[12]	99,8	99,8	99,9	99,8	99,8	99,8	99,9	99,8
[13]	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8
[14]	99,8	99,8	99,8	99,8	99,8	99,8	99,8	99,8
[15]	99,7	99,7	99,8	99,8	99,8	99,8	99,8	99,8
[16]	99,8	99,8	99,8	99,8	99,8	99,8	99,9	99,8
[17]	99,7	99,8	99,8	99,8	99,7	99,7	99,8	99,9
[18]	99,7	99,7	99,8	99,7	99,5	99,6	99,8	99,8
[19]	99,7	99,7	99,8	99,7	99,8	99,8	99,9	99,8
[20]	99,7	99,6	99,7	99,8	99,8	99,8	99,8	99,8
[21]	99,6	99,6	99,7	99,7	99,7	99,7	99,7	99,7

[file information]

Region x	20.0 (mm)	illumination mode	Special 2
Region y	22.6 (mm)	Stopper	Multiple
Pitch x	1.00 (mm)	INPUT LENS	none
Pitch y	1.13 (mm)	1st ZOOM LENS	49,2 %
IUC value	17153	2nd ZOOM LENS	49,8 %
UC0	16609	Compensator 2 value	20 %
IUC max	100.111	Direction	-53 Degrees
IUC MIN	99.450		
IUC val	0.331		

INTENSITY: 17153 [W/m²]

UNIFORMITY: 0.331 [%]

**Item: LIGHT INTEGRATOR
ACCURACY**

Date: 17-Jul-07

Engineer: P.Wells

Machine No.: 7072885

User ID: Stepper 12

[%]

Time set (ms)	exp. set value	MAX	MIN	AVE	repeatability	set error
80	1300	1309	1303	1305,9	0,23	0,45
250	4062,5	4078,5	4068	4073	0,13	0,26
500	8125	8151,5	8119,5	8133,7	0,20	0,11
1000	16250	16284	16191,5	16229,3	0,28	-0,13

Linearity: 0,29 [%]

Light integrator accuracy: 0,58 [%]

Canon FPA-3000i5+

**Item: MASKING BLADE
ACCURACY**

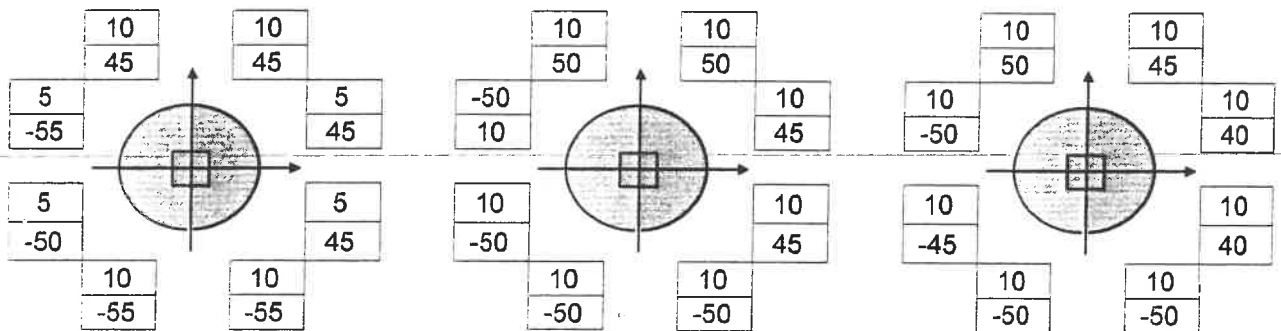
Date: 18-Jul-07

Engineer: Peter Wells

Machine No.: 7072885

User ID: Stepper 12

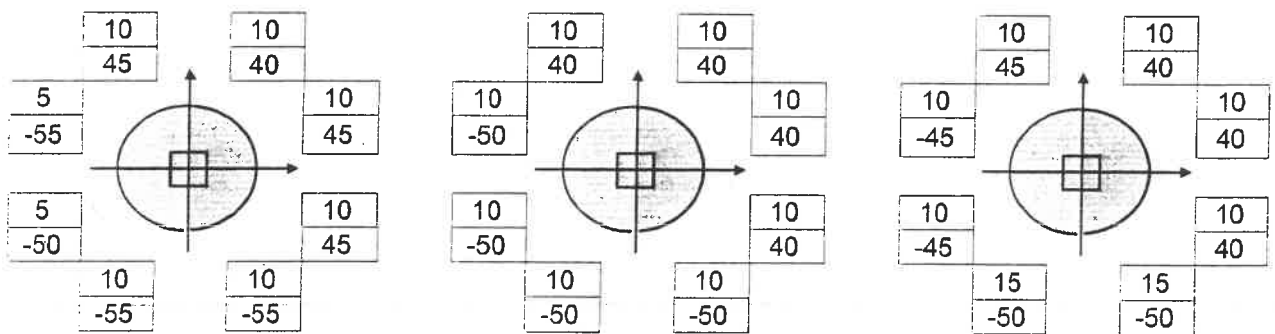
TOP



5mm

11mm

18mm



BOTTOM

UPPER: Gray Zone Width
LOWER: Blade Position

Rotation Theta: -251 [ppm]
Gray Zone(R): 13 [um]
Total Accuracy: -68 [um]

Item: **FOCUS LEVELING**
REPEATABILITY
STATIC

Date: 18-Jul-07
Engineer: C.Perry
Machine No.: 7072885
User ID: Stepper 12

Data #	Z	X	Y	CH-1(M)	CH-2(M)	CH-3(M)	CH-4(M)	CH-5(M)
1	0,014	-1,790	-2,370	0,02	-0,04	0,04	0,02	0,03
2	-0,004	0,360	-3,640	-0,03	-0,04	0,02	0,01	0,03
3	0,003	2,430	0,000	0,00	-0,01	0,03	-0,04	0,04
4	0,007	1,050	-3,880	-0,03	-0,03	0,06	0,01	0,04
5	0,015	1,300	-1,980	-0,01	-0,01	0,06	0,01	0,03
6	-0,008	0,770	-2,810	-0,03	-0,04	0,03	-0,01	0,02
7	0,005	0,150	-2,070	-0,01	-0,02	0,03	0,01	0,02
8	0,000	-0,860	-2,580	-0,01	-0,03	0,01	0,01	0,01
9	0,002	-0,380	-0,740	0,02	-0,03	0,01	-0,02	0,03
10	-0,006	2,140	-1,930	-0,01	-0,04	0,02	-0,04	0,04
11	0,006	-0,560	-0,500	0,00	-0,02	0,04	0,00	0,00
12	0,001	-0,310	-2,890	-0,01	-0,04	0,03	0,00	0,02
13	0,003	-0,310	-1,100	0,00	-0,03	0,03	-0,01	0,01
14	0,009	0,480	-3,100	-0,01	-0,03	0,04	0,00	0,04
15	0,008	0,620	-2,880	-0,01	-0,03	0,04	0,00	0,04
16	0,009	-0,960	-2,180	0,00	-0,03	0,05	0,01	0,01
17	-0,017	-0,250	-2,680	-0,04	-0,05	0,01	-0,01	0,00
18	0,007	-0,600	-3,180	-0,01	-0,04	0,03	0,02	0,03
19	0,013	0,520	-1,630	0,01	-0,02	0,04	0,00	0,04
20	0,013	-0,420	-3,220	-0,01	-0,03	0,06	0,02	0,03
21	-0,004	1,740	0,450	-0,02	0,00	0,04	-0,03	-0,01
22	-0,008	-0,360	-2,940	-0,03	-0,04	0,01	0,01	0,01
23	0,005	-1,140	-3,000	0,00	-0,05	0,04	0,01	0,03
24	0,017	1,160	-3,700	-0,01	-0,02	0,04	0,02	0,05
25	0,006	-2,940	-1,950	0,01	-0,04	0,04	0,02	0,00
Min.	-0,02	-2,9	-3,9	0,0	-0,1	0,0	0,0	0,0
Max.	0,02	-2,4	0,5	0,0	0,0	0,1	0,0	0,1
Mean	0,004	0,1	-2,3	0,0	0,0	0,0	0,0	0,0
Count	25	25	25	25	25	25	25	25
Range	0,034	5,37	4,33	0,06	0,05	0,05	0,07	0,06
3-S	0,024	3,568	3,364	0,047	0,038	0,044	0,05	0,05

Focus: 0,024 [um]
Tilt X: 3,57 [um]
Y: 3,36 [um]
each Ch.: 0,053 [um]

Item: FOCUS LEVELING**Date: 18-Jul-07****REPEATABILITY****Engineer: C.Perry****NO.1****Machine No.: 7072885****User ID: Stepper 12**

Shot #	Z (um)	X (ppm)	Y (ppm)
1	0,019	0,700	-2,100
2	-0,011	1,500	-2,600
3	-0,009	0,000	0,300
4	-0,010	2,000	-1,100
5	-0,045	-0,700	2,200
6	-0,020	-2,000	0,300
7	0,008	0,000	-1,400
8	0,056	-0,700	0,100
9	0,025	-2,000	-0,100
10	0,005	-0,300	-0,300
11	-0,052	0,700	0,700
12	-0,004	0,000	-1,000
13	0,011	-1,200	-0,200
14	-0,044	-1,500	-0,900
15	0,017	2,000	-2,500
16	-0,017	0,000	-0,100
17	-0,013	-0,300	2,700
18	-0,013	0,100	1,100
19	0,025	-1,100	-0,300
20	0,008	-0,300	1,200
21	-0,017	-1,000	-2,600
22	-0,015	-0,900	2,100
23	-0,056	0,900	2,500
24	0,012	-0,700	-0,200
25	-0,004	1,000	-0,900
26	-0,004	2,500	1,700
27	0,011	0,600	-2,100
28	0,002	0,600	0,200
29	-0,036	-0,500	-0,600
30	0,032	0,000	0,000
31	0,027	0,100	0,000
32	-0,006	0,600	-1,500

AVE.	-0,004	0,000	-0,200
3sigma	0,076	3,300	4,400

Focus:	0,08	[um]
Tilt X:	3,3	[ppm]
Y:	4,4	[ppm]

Item: FOCUS LEVELING**Date:** 18-Jul-07**REPEATABILITY
NO.2****Engineer:** C.Perry**Machine No.:** 7072885**User ID:** Stepper 12

Shot #	Z (um)	X (ppm)	Y (ppm)
1	0,002	1,400	1,000
2	-0,007	0,100	-0,600
3	-0,006	0,900	2,700
4	0,000	-1,400	-2,500
5	-0,053	-1,200	2,100
6	0,024	-1,600	-1,400
7	-0,002	0,600	-2,200
8	0,008	0,000	2,000
9	-0,011	1,100	-0,600
10	-0,016	-1,700	-2,500
11	0,000	1,300	0,000
12	0,007	0,100	0,000
13	-0,003	0,600	0,900
14	0,010	-0,700	-1,300
15	0,001	0,500	0,300
16	0,000	0,000	2,200
17	-0,045	-0,700	-2,200
18	0,012	-0,100	-2,800
19	0,005	-0,300	-1,500
20	0,031	0,200	0,400
21	0,020	0,300	-0,500
22	-0,015	-1,100	1,500
23	-0,035	0,100	-0,300
24	-0,018	0,800	-1,800
25	-0,024	1,000	2,700
26	-0,004	0,100	1,200
27	0,000	1,900	-2,300
28	0,002	-1,000	2,200
29	0,001	2,100	-0,600
30	-0,001	-0,400	0,600
31	0,015	-2,600	-0,200
32	0,026	-1,000	-1,600

AVE.	-0,002	0,000	-0,200
3sigma	0,056	3,200	5,000

Focus:	0,06	[um]
Tilt X:	3,2	[ppm]
Y:	5,0	[ppm]

Item: FOCUS LEVELING**Date: 18-Jul-07****REPEATABILITY****Engineer: C.Perry****NO.3****Machine No.: 7072885****User ID: Stepper 12**

Shot #	Z (um)	X (ppm)	Y (ppm)
1	-0,007	-0,800	0,400
2	0,020	1,300	-0,700
3	0,017	-0,600	-2,600
4	-0,016	0,300	1,400
5	0,000	-1,400	0,400
6	0,012	0,800	4,200
7	0,019	-0,800	-0,600
8	0,025	-1,200	2,200
9	0,001	-0,300	-1,100
10	-0,030	0,300	-0,300
11	-0,022	0,500	1,200
12	0,006	1,400	-3,100
13	0,023	1,500	0,600
14	-0,001	-1,100	-1,600
15	0,002	1,500	-1,700
16	0,003	1,200	0,500
17	-0,026	-1,000	1,300
18	-0,005	-1,600	-2,800
19	0,000	-1,300	0,800
20	0,006	-0,800	-0,500
21	-0,013	-0,800	1,800
22	-0,011	-0,100	-2,300
23	-0,005	0,900	-0,300
24	0,035	2,600	2,700
25	-0,011	-0,100	0,800
26	0,000	-0,300	0,100
27	-0,003	1,800	-3,300
28	0,010	0,700	-1,300
29	-0,024	0,700	-0,500
30	-0,003	-0,600	0,800
31	-0,019	-0,600	-1,300
32	0,007	1,700	-0,600

AVE.	0,000	0,119	-0,169
3sigma	0,047	3,347	5,178

Focus:	0,05	[um]
Tilt X:	3,3	[ppm]
Y:	5,2	[ppm]

Canon FPA-3000 i5+

Item: **UNEVEN FOCUS**
(DxD)

Installation Team

Date : 18-Jul-07

Engineer: C.Perry

Machine No. : 7072885

User ID: Stepper 12

-0,1	-0,125	-0,15
-0,125	X	-0,15
-0,15	-0,15	-0,15

Incline X: **-1,25** [ppm]

Incline Y: **1,25** [ppm]

Incline V: **1,77** [ppm]

Item: **UNEVEN FOCUS (TSOC)**

Date : 18-Jul-07

Engineer: P.Wells

Machine No. : 7072885

User ID: Stepper 12

	0 deg	180 deg
X	-0,24	5,98
Y	-1,68	4,29

**Item: GLOBAL TILT
ACCURACY****Date:** 18-Jul-07**Engineer:** C.Perry**Machine No.:** 7072885**User ID:** Stepper 12

Data #	X(ppm)	Y(ppm)
1	1,05	0,245
2	1,1	0,195
3	0,55	0,42
4	0,025	-0,28
5	0,65	0,645
6	0,075	0,495
7	0,175	0,27
8	-0,525	-0,155
9	-0,125	-0,305
10	0,775	0,845
11	-0,3	0,545
12	0,425	-0,055
13	0,425	0,72
14	1,3	1,07
15	0,4	1,395
16	0,475	0,795
17	0,55	0,27
18	1	0,645
19	0,7	0,445
20	0,225	0,895
21	0,15	0,57
22	0,35	-0,805
23	0,125	0,82
24	0,45	1,195
25	0,95	1,07
Max.	1,3	1,395
Min.	-0,525	-0,805
Mean	0,439	0,478
Count	25	25
Range	1,825	2,2
3-S	1,312	1,524

3SIGMA**X: 1,3****Y: 1,5**

Item: **GLOBAL LEVELING
STABILITY**

Installation Team

Date: 18-Jul-07

Engineer: P.Wells

Machine No. : 7072885

User ID: Stepper 12

X	Y	mean X	mean Y
50 ppm	50 ppm	1,025	-1,28
50 ppm	0 ppm	0,45	0,195
50 ppm	-50 ppm	1,2	-0,055
-50 ppm	50 ppm	-0,65	0,945
-50 ppm	0 ppm	0,15	-0,63
-50 ppm	-50 ppm	-0,4	0,47
0 ppm	50 ppm	1,05	-0,43
0 ppm	-50 ppm	0,175	0,495
50 ppm	50 ppm	-0,3	0,77
50 ppm	0 ppm	0,075	-0,138
50 ppm	-50 ppm	0,175	0,12
-50 ppm	50 ppm	0,55	-0,33
-50 ppm	0 ppm	-1,3	-0,405
-50 ppm	-50 ppm	-0,25	0,445
0 ppm	50 ppm	0,175	-0,405
0 ppm	-50 ppm	0,125	-0,405

3 Sig X= 2,0

3 Sig Y= 1,7

Item: i TV DEFOCUS
CHARACTERISTICS

**** AA Defocus Characteristic Measurement ****

<<< AA defocus measurement data >>>
[Z stage drive] >>>

N	K	XI	YI	Xr	Yr
1	Z = -3.00	-105	-120	115	216
1	Z = 0.00	-115	-123	128	192
1	Z = 3.00	-115	-120	114	176
1	Ka	-3	-1	4	-8
1	Kb	0	1	-4	-5
1	Kc	1	1	-4	1
2	Z = -3.00	-113	-121	112	217
2	Z = 0.00	-112	-120	132	194
2	Z = 3.00	-110	-118	117	178
2	Ka	0	0	6	-7
2	Kb	0	0	-5	-5
2	Kc	0	0	-5	1
3	Z = -3.00	-108	-120	113	215
3	Z = 0.00	-118	-121	124	192
3	Z = 3.00	-115	-123	111	177
3	Ka	-3	0	3	-7
3	Kb	1	0	-4	-5
3	Kc	2	0	-4	1
4	Z = -3.00	-102	-123	116	216
4	Z = 0.00	-107	-118	132	196
4	Z = 3.00	-114	-119	115	178
4	Ka	-1	1	5	-6
4	Kb	-2	0	-5	-6
4	Kc	0	-1	-5	0

<<< AA defocus characteristic >>>

N	K	XI	YI	Xr	Yr
Total	Z = -3.00	-107	-121	114	216
Total	Z = 0.00	-113	-120	129	193
Total	Z = 3.00	-113	-120	114	177
Total	Ka	-2	0	5	-7
Total	Kb	0	0	-4	-5
Total	Kc	0	0	-4	-1

Ka=(TOCz-TOCm)/3
Kb=(TOCp-TOCz)/3
Kc=(TOCm+TOCp-2

i4>

|Ka|: -7
|Kb|: -5
|Kc|: -4
|Ka+Kb|: -12

Canon FPA-3000 i5+

Installation Team

Date : 20-Jul-07

Item: RETICLE ROTATION

Engineer: Luhn / Wagner

ACCURACY

Machine No. : 7072885

User ID: Stepper 12

	AVE	1	2	3	4	5
Y1	0,0042	0,004	0,010	0,004	-0,002	X
Y2	0,0021	X	0,004	0,004	0,001	0,000
Y3	0,0056	0,008	0,004	0,009	0,002	X
Y4	0,0023	X	0,004	0,003	0,002	0,000
Y5	0,0001	0,009	0,003	0,001	0,000	X
Y	0,0028					

Accuracy: 1,4 [nm]
Repeatability: 6,0 [nm]

Item: SRC STABILITY

Date: 21-Jul-07

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

1	Rot. = 0,25	Mag. = 6,961 [ppm]
2	Rot. = 0,07	Mag. = 7,351 [ppm]
3	Rot. = -0,15	Mag. = 7,346 [ppm]
4	Rot. = 0,18	Mag. = 7,285 [ppm]
5	Rot. = -0,03	Mag. = 7,167 [ppm]
6	Rot. = -0,02	Mag. = 7,268 [ppm]
7	Rot. = -0,1	Mag. = 7,105 [ppm]
8	Rot. = -0,1	Mag. = 7,206 [ppm]
9	Rot. = -0,17	Mag. = 7,333 [ppm]
10	Rot. = 0,01	Mag. = 7,171 [ppm]
11	Rot. = 0,01	Mag. = 7,259 [ppm]
12	Rot. = 0,12	Mag. = 7,329 [ppm]
13	Rot. = 0,14	Mag. = 7,399 [ppm]
14	Rot. = -0,12	Mag. = 7,417 [ppm]
15	Rot. = 0,05	Mag. = 7,276 [ppm]
16	Rot. = -0,05	Mag. = 7,171 [ppm]
17	Rot. = -0,06	Mag. = 7,496 [ppm]
18	Rot. = 0,16	Mag. = 7,496 [ppm]
19	Rot. = -0,04	Mag. = 7,14 [ppm]
20	Rot. = 0,2	Mag. = 7,382 [ppm]
21	Rot. = 0,25	Mag. = 7,276 [ppm]
22	Rot. = 0,04	Mag. = 7,311 [ppm]
23	Rot. = 0,11	Mag. = 7,443 [ppm]
24	Rot. = 0,15	Mag. = 7,478 [ppm]
25	Rot. = 0,17	Mag. = 7,355 [ppm]
26	Rot. = 0,11	Mag. = 7,377 [ppm]
27	Rot. = 0,06	Mag. = 7,206 [ppm]
28	Rot. = 0,17	Mag. = 7,206 [ppm]
29	Rot. = 0,15	Mag. = 7,32 [ppm]
30	Rot. = 0,16	Mag. = 7,531 [ppm]
31	Rot. = 0,07	Mag. = 7,522 [ppm]
32	Rot. = 0,3	Mag. = 7,175 [ppm]
33	Rot. = -0,06	Mag. = 7,434 [ppm]
34	Rot. = 0,16	Mag. = 7,434 [ppm]
35	Rot. = 0,19	Mag. = 7,298 [ppm]
36	Rot. = 0,25	Mag. = 7,36 [ppm]
37	Rot. = 0,15	Mag. = 7,254 [ppm]
38	Rot. = 0,24	Mag. = 7,219 [ppm]
39	Rot. = 0,13	Mag. = 7,171 [ppm]
40	Rot. = 0,1	Mag. = 7,307 [ppm]
41	Rot. = 0,17	Mag. = 7,224 [ppm]
42	Rot. = 0,03	Mag. = 7,303 [ppm]
43	Rot. = 0,22	Mag. = 7,32 [ppm]
44	Rot. = 0,08	Mag. = 7,364 [ppm]
45	Rot. = 0,28	Mag. = 7,215 [ppm]
46	Rot. = 0,11	Mag. = 7,452 [ppm]
47	Rot. = -0,08	Mag. = 7,439 [ppm]
48	Rot. = 0,22	Mag. = 7,645 [ppm]
49	Rot. = 0,05	Mag. = 7,228 [ppm]
50	Rot. = -0,01	Mag. = 7,268 [ppm]
Available	Data 50 element	Span 22,8 [mm]
	Mean : Rot.	= 0,086
3Sigma	: Rot.	= 0,357
	Max : Rot.	= 0,304
	Min : Rot.	= -0,171
	Range : Rot.	= 0,476
		Mag. = 7,314 [ppm]
		Mag. = 0,378 [ppm]
		Mag. = 7,645 [ppm]
		Mag. = 6,961 [ppm]
		Mag. = 0,684 [ppm]

3 Sig = 0,086 ppm

Canon FPA-3000i5+

Installation Team

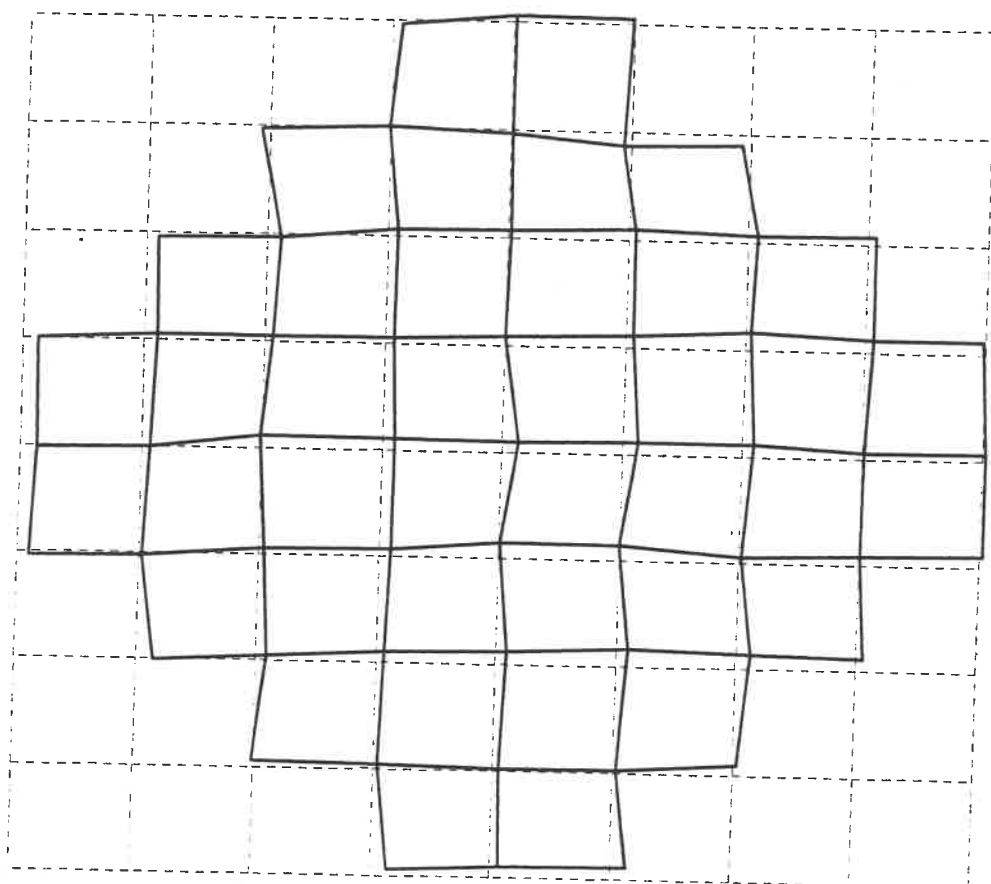
Item: **BAR MIRROR BOW CHECK**

Date: 18-Jul-07

Engineer: P.Wells

Machine No.: 7072885

User ID: Stepper12



Map Scale 0,10 um

BOW X	-8,4	[nm]
Y	-4,6	[nm]

**Item: STEPPING ACCURACY
(1st Wafer)**

Date: 20-Jul-07

Engineer: Luhn/Wagner

Machine No.: 7072885

User ID: Stepper 12

	XX	YY		XX	YY
1	0,003	-0,009	47	0,008	0,001
2	-0,007	-0,005	48	0,003	0,002
3	0,004	-0,010	49	0,001	0,005
4	-0,003	-0,008	50	0,003	-0,001
5	0,003	-0,004	51	0,002	0,003
6	0,003	-0,002	52	-0,004	0,006
7	-0,001	-0,001	53	0,013	0,001
8	-0,007	-0,003	54	0,010	0,002
9	0,003	-0,004	55	0,003	-0,001
10	-0,002	-0,008	56	0,011	0,002
11	0,001	-0,006	57	0,004	-0,001
12	0,001	0,004	58	0,004	0,004
13	0,007	-0,003	59	0,001	0,002
14	-0,005	0,001	60	0,006	0,010
15	0,005	-0,004	61	0,007	0,001
16	-0,003	-0,001	62	0,005	0,003
17	-0,004	-0,004	63	0,013	0,006
18	0,000	0,002	64	0,002	0,004
19	0,007	-0,006	65	0,010	0,000
20	0,004	-0,003	66	0,006	0,003
21	-0,003	-0,003	67	-0,005	0,002
22	0,007	-0,005	68	0,012	0,000
23	0,000	-0,005	69	0,005	0,005
24	0,001	-0,009	70	0,005	0,006
25	0,003	-0,005	71	0,008	0,005
26	0,004	-0,008	72	0,009	0,004
27	0,000	-0,012	73	0,006	0,006
28	0,002	-0,008	74	0,009	0,010
29	-0,002	-0,001	75	0,008	0,007
30	0,007	0,003	76	0,005	0,011
31	-0,003	0,002	77	0,018	0,004
32	0,005	0,002	78	0,007	0,008
33	-0,005	0,000	79	0,000	0,000
34	0,001	0,002	80	0,000	0,000
35	0,001	-0,004	81	0,000	0,000
36	0,000	0,004	82	0,000	0,000
37	0,002	-0,004	83	0,000	0,000
38	0,001	0,002	84	0,000	0,000
39	0,007	-0,008	85	0,000	0,000
40	0,001	0,003	86	0,000	0,000
41	0,001	0,003			
42	0,006	0,000			
43	0,004	0,001			
44	0,006	0,004			
45	0,009	0,001			
46	0,007	0,005			

3sigma: 14,4 14,8 [um]

3sigma XX : 14,4 [nm]
YY : 14,8 [nm]

**Item: STEPPING ACCURACY
(2nd Wafer)**

Date: 20-Jul-07

Engineer: Luhn/Wagner

Machine No.: 7072885

User ID: Stepper 12

	XX	YY		XX	YY
1	0,000	0,000	47	0,009	0,009
2	0,000	0,001	48	0,011	0,011
3	-0,004	0,005	49	0,013	0,010
4	0,009	0,001	50	0,008	0,008
5	-0,004	-0,002	51	0,009	0,005
6	0,007	0,005	52	0,007	0,007
7	0,008	0,006	53	0,005	0,010
8	0,005	-0,001	54	0,009	0,005
9	0,000	0,005	55	0,004	0,007
10	0,004	0,002	56	-0,004	0,009
11	0,006	-0,003	57	0,010	0,006
12	0,005	0,000	58	0,011	0,005
13	0,001	0,007	59	0,007	0,009
14	0,010	0,001	60	0,006	0,007
15	0,009	0,004	61	0,013	0,011
16	-0,001	-0,001	62	0,006	0,005
17	-0,003	0,003	63	0,009	0,008
18	0,004	0,001	64	0,011	0,004
19	0,007	0,004	65	0,011	0,004
20	0,008	-0,002	66	0,012	0,002
21	0,005	0,003	67	0,010	0,008
22	0,010	-0,002	68	0,008	0,004
23	0,005	0,006	69	0,007	0,007
24	-0,002	-0,003	70	0,011	0,013
25	0,011	0,007	71	0,009	0,013
26	0,007	-0,003	72	0,009	0,010
27	0,009	0,002	73	0,005	0,010
28	0,008	0,000	74	0,016	0,009
29	0,007	0,001	75	0,006	0,008
30	0,010	0,006	76	0,016	0,011
31	0,010	0,009	77	0,007	0,014
32	-0,002	0,002	78	0,014	0,009
33	0,002	0,007	79	0,010	0,014
34	0,009	0,003	80	0,000	0,000
35	0,000	0,007	81	0,000	0,000
36	-0,001	0,002	82	0,000	0,000
37	0,007	0,003	83	0,000	0,000
38	0,012	0,003	84	0,000	0,000
39	-0,002	0,007	85	0,000	0,000
40	0,011	0,004	86	0,000	0,000
41	0,001	0,008			
42	0,007	0,006			
43	0,012	0,007			
44	0,009	0,004			
45	0,003	0,007			
46	0,008	0,006			

3sigma: 13,8 12,5 [um]

3sigma XX : 13,8 [nm]
YY : 12,5 [nm]

**Item : STEPPING ACCURACY
(3rd Wafer)**

Date : 20-Jul-07

Engineer : Luhn/Wagner

Machine No. : 7072885

User ID : Stepper 12

	XX	YY		XX	YY
1	0,000	0,000	47	0,005	0,012
2	0,006	0,005	48	0,014	0,008
3	0,005	0,008	49	0,007	0,012
4	0,006	0,006	50	0,007	0,009
5	0,007	0,008	51	0,011	0,010
6	0,005	0,009	52	0,007	0,009
7	0,017	0,010	53	0,009	0,009
8	0,000	0,011	54	0,014	0,008
9	0,003	0,012	55	0,009	0,008
10	0,011	0,009	56	0,003	0,008
11	0,015	0,012	57	0,010	0,005
12	0,009	0,004	58	0,015	0,008
13	0,000	0,009	59	0,011	0,011
14	0,015	0,008	60	0,009	0,012
15	0,009	0,010	61	0,011	0,014
16	0,011	0,008	62	0,009	0,007
17	0,006	0,012	63	0,020	0,013
18	0,007	0,007	64	0,018	0,011
19	0,009	0,015	65	0,002	0,012
20	0,010	0,009	66	0,015	0,007
21	0,007	0,005	67	0,011	0,013
22	0,006	0,005	68	0,008	0,008
23	0,013	0,003	69	0,008	0,009
24	0,011	0,002	70	0,013	0,013
25	0,006	0,006	71	0,010	0,013
26	0,014	0,003	72	0,009	0,015
27	0,015	0,006	73	0,006	0,010
28	0,009	0,003	74	0,013	0,012
29	0,009	0,008	75	0,011	0,012
30	0,007	0,007	76	0,008	0,011
31	0,006	0,011	77	0,011	0,015
32	0,015	0,002	78	0,015	0,012
33	0,008	0,013	79	0,011	0,011
34	0,013	0,007	80	0,000	0,000
35	0,002	0,013	81	0,000	0,000
36	-0,002	0,007	82	0,000	0,000
37	0,021	0,015	83	0,000	0,000
38	0,000	0,007	84	0,000	0,000
39	0,008	0,011	85	0,000	0,000
40	0,012	0,006	86	0,000	0,000
41	0,011	0,008			
42	0,007	0,007			
43	0,012	0,007			
44	0,013	0,006			
45	0,012	0,014			
46	0,014	0,007			

3sigma: 14,5 12,1 [um]

3sigma XX : 14,5 [nm]
YY : 12,1 [nm]

Canon FPA-3000i5+

Installation Team

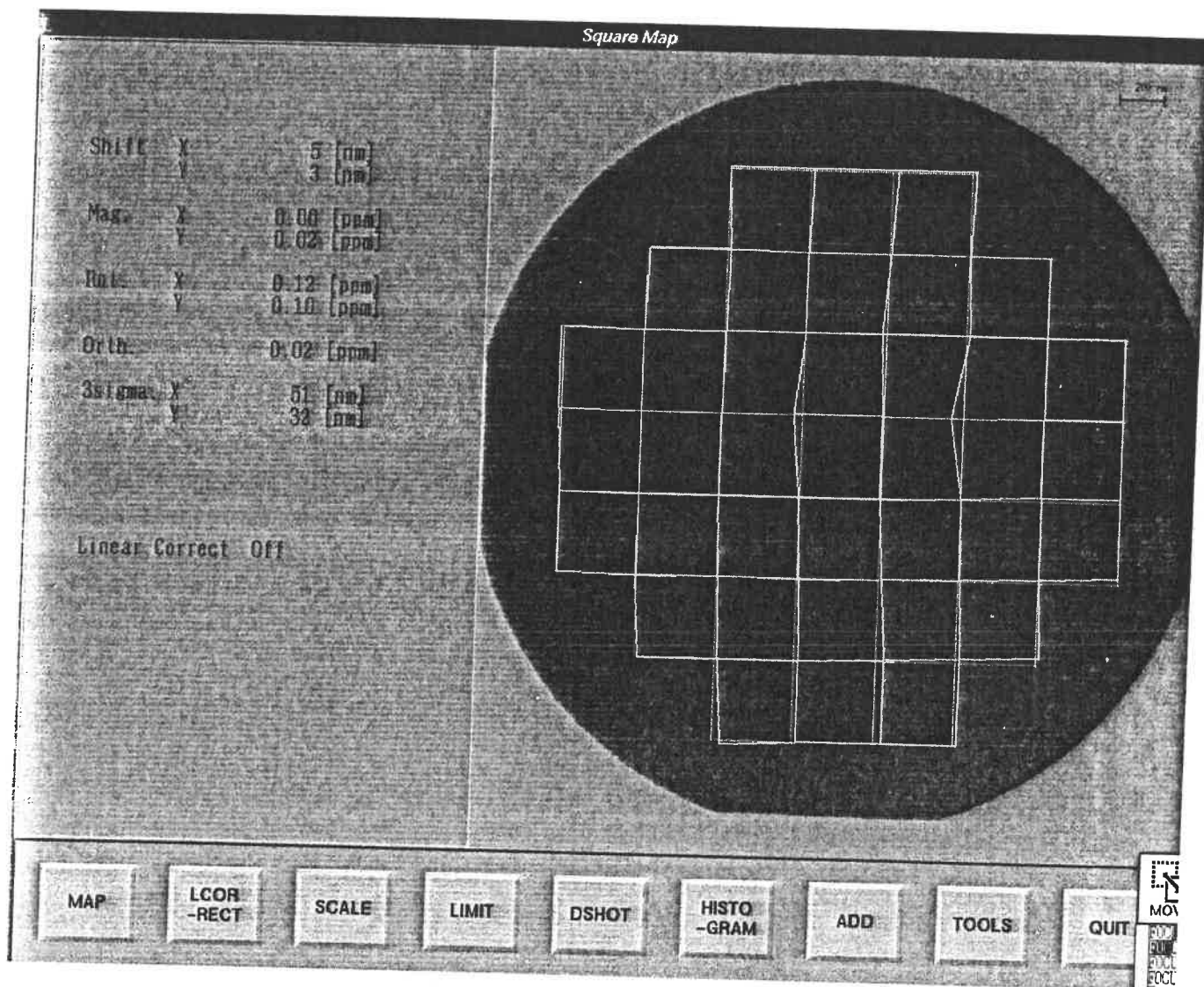
Item: *XYSA On Quartz Wafer*

Date: 17-Jul-07

Engineer: C.Perry

Machine No.: 7072885

User ID: Stepper 12



Item: **STEPPING REPEATABILITY**

Date: 20-Jul-07

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

Wafer 1

Shot	X	Y
1	0,013	-0,009
2	0,011	-0,006
3	0,013	-0,009
4	0,001	-0,008
5	-0,003	-0,002
6	-0,004	-0,011
7	-0,002	-0,003
8	0,005	-0,006
9	0,005	0,001
10	0,008	0,002
11	0,006	-0,006
12	0,008	-0,002
13	0,010	-0,001
14	0,008	-0,002
15	0,006	0,005
16	0,002	-0,002
17	0,003	-0,001
18	0,006	0,000
19	-0,004	0,000
20	-0,011	0,000
21	-0,008	-0,003
22	-0,006	0,003
23	-0,003	0,004
24	-0,008	0,000
25	0,004	0,004
26	0,009	0,004
27	0,005	0,002
28	-0,003	-0,001
29	-0,002	-0,004
30	-0,005	-0,004
31	-0,015	0,001
32	-0,010	-0,004
3 Sigma	0,022	0,012

	X	Y
	0,022	0,012
3Sigma	22,2	12,0 nm

Item: DISTORTION

MODE 6365
INCLUDING MAGNIFICATION

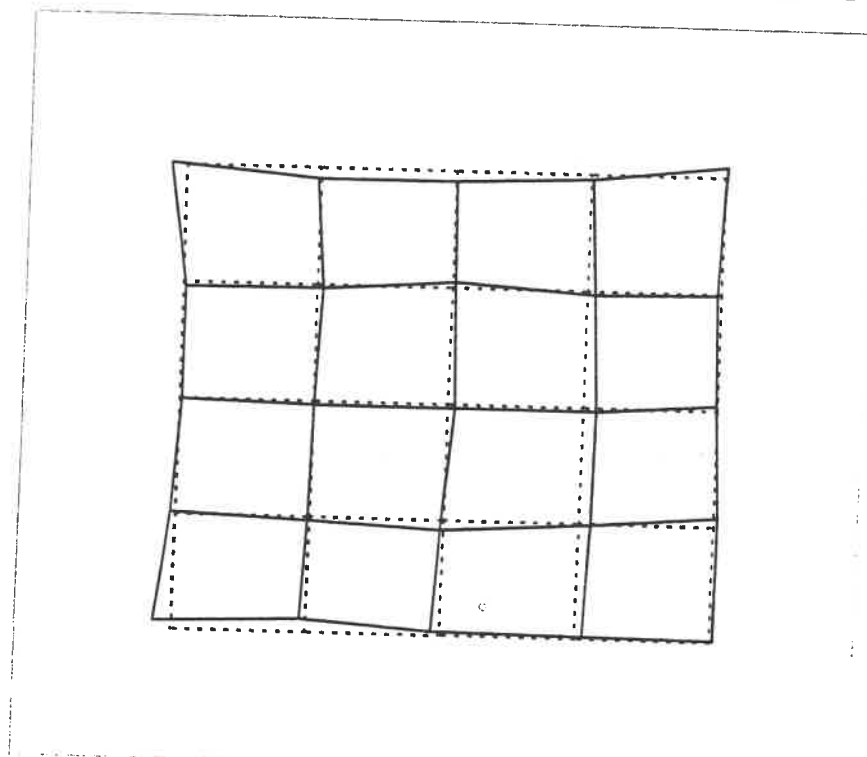
Date: 20-Jul-07

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

Reticle ID: 940601



Map Scale= 0.20 [um]

Magnification

X= 0.781 ppm
Y= -0.634 ppm

Average
0.074 ppm

Distortion

X Max= 0.019 um
Y Max= 0.023 um

Min= -0.029 um
Min= -0.019 um

Distortion X= **0.029** [um]
Y= **0.023** [um]

Canon FPA-3000i5+

Item: Lensheating

Installaton Team

Date: 24-Jul-07

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

Normal Mode

Na 0,63
Sigma 0,65

Focus

Start 0,1
Heat 0,2
Cool 0,2

Range 0,1

Special Mode 1

Na 0,52
Sigma 0,60

Focus

Start 0,05
Heat 0
Cool 0,05

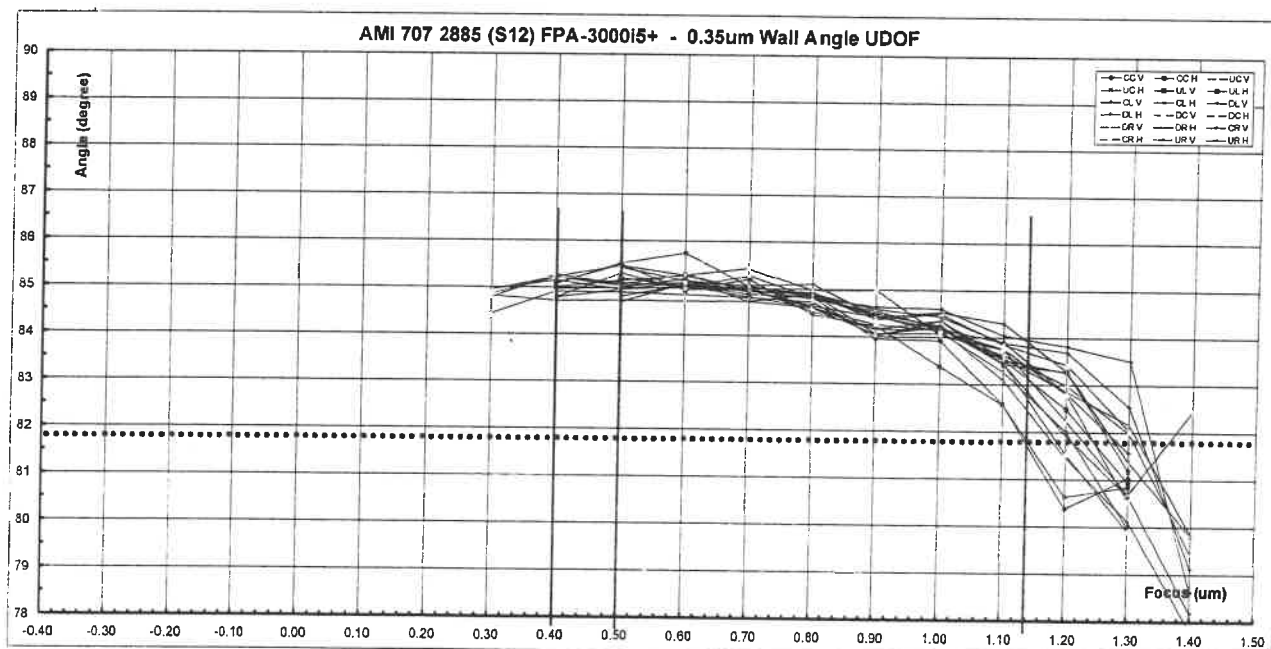
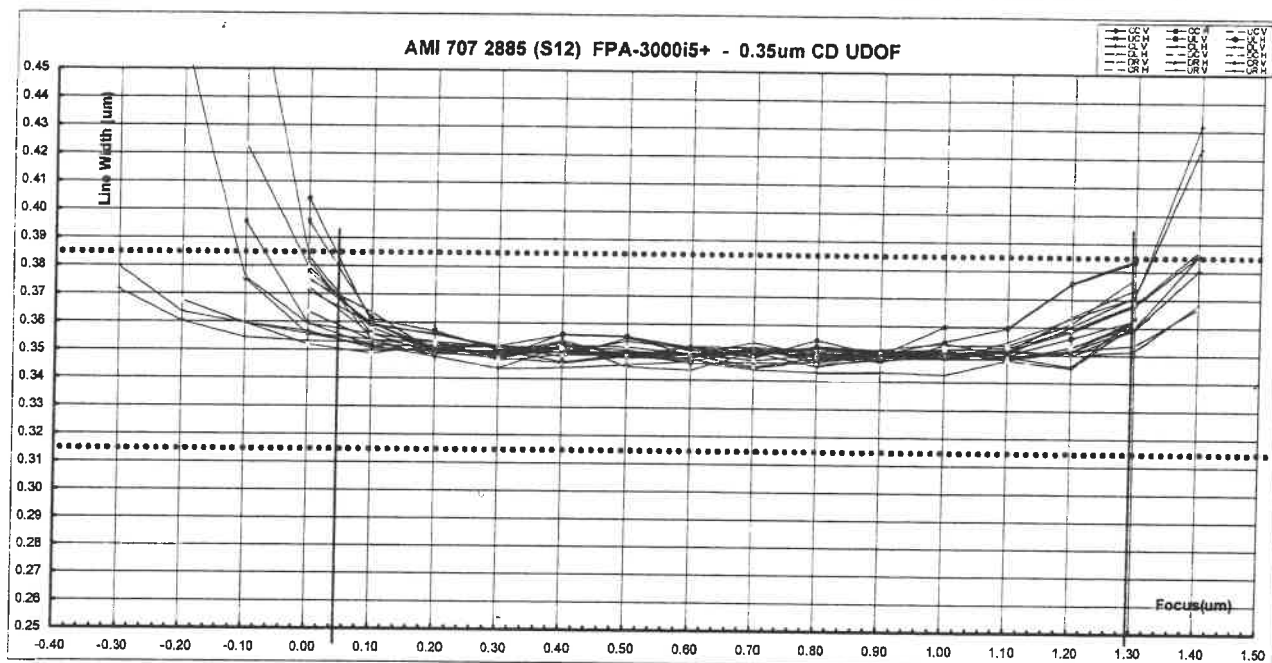
Range 0,05



DOF performance

AMI 707 2885 i5+ (Stepper 12)

Rt	0.86 um	Reticle	G700	Machine Type	3000i5+	NA	0.83	Illumination	Standard
Resist	OIR	Exposure	2120 μm^2	Serial No.	707 2885	Sigma	0.65	Line width	0.35 um



CD Depth of Focus @ 0.35um

1.26 um

Wall Angle Depth of Focus for 0.35um @ 83.6 deg

0.64 um

Date: 23-Jul-07

Item: **BLCC STABILITY**

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

1	BIX	0,001	BIY	0,029
2	BIX	0,008	BIY	0,030
3	BIX	0,005	BIY	0,032
4	BIX	0,007	BIY	0,029
5	BIX	0,007	BIY	0,029
6	BIX	0,011	BIY	0,025
7	BIX	0,007	BIY	0,026
8	BIX	0,011	BIY	0,024
9	BIX	0,005	BIY	0,025
10	BIX	0,004	BIY	0,027
11	BIX	0,007	BIY	0,031
12	BIX	0,007	BIY	0,028
13	BIX	0,009	BIY	0,029
14	BIX	0,009	BIY	0,026
15	BIX	0,007	BIY	0,026
16	BIX	0,011	BIY	0,027
17	BIX	0,006	BIY	0,025
18	BIX	0,010	BIY	0,022
19	BIX	0,009	BIY	0,022
20	BIX	0,009	BIY	0,023
21	BIX	0,008	BIY	0,023
22	BIX	0,010	BIY	0,024
23	BIX	0,007	BIY	0,025
24	BIX	0,011	BIY	0,025
25	BIX	0,007	BIY	0,025
26	BIX	0,006	BIY	0,024
27	BIX	0,007	BIY	0,024
28	BIX	0,008	BIY	0,026
29	BIX	0,004	BIY	0,023
30	BIX	0,007	BIY	0,024
31	BIX	0,011	BIY	0,023
32	BIX	0,009	BIY	0,023
33	BIX	0,011	BIY	0,022

34	BIX	0,009	BIY	0,024
35	BIX	0,005	BIY	0,022
36	BIX	0,007	BIY	0,024
37	BIX	0,007	BIY	0,022
38	BIX	0,006	BIY	0,023
39	BIX	0,008	BIY	0,023
40	BIX	0,011	BIY	0,025
41	BIX	0,007	BIY	0,024
42	BIX	0,008	BIY	0,027
43	BIX	0,006	BIY	0,024
44	BIX	0,009	BIY	0,023
45	BIX	0,007	BIY	0,022
46	BIX	0,006	BIY	0,022
47	BIX	0,007	BIY	0,022
48	BIX	0,004	BIY	0,025
49	BIX	0,007	BIY	0,023
50	BIX	0,007	BIY	0,022

Data:	50 Illumination Mode	1
Mean:	BIX 0,008	BIY 0,025
3Sigma:	BIX 0,006	BIY 0,008
Max:	BIX 0,011	BIY 0,032
Min:	BIX 0,001	BIY 0,022
Range:	BIX 0,010	BIY 0,010

	3 sigma	
X	0,006	[um]
Y	0,008	[um]

Item: ALFC ACCURACY**Date:** 19-Jul-07**Engineer:** Luhn / Wagner**Machine No.:** 7072885**User ID:** Stepper 12**Advanced Lens Focus Check (LEFT)**

1	-0,015 [um]
2	0,006 [um]
3	0,022 [um]
4	0,011 [um]
5	-0,002 [um]
6	0,01 [um]
7	0,021 [um]
8	0,023 [um]
9	0,022 [um]
10	0,033 [um]
11	0,033 [um]
12	0,058 [um]
13	0,002 [um]
14	0,01 [um]
15	0,009 [um]
16	0,048 [um]
17	0,008 [um]
18	0,028 [um]
19	0,04 [um]
20	0,015 [um]
21	-0,009 [um]
22	0,013 [um]
23	0,012 [um]
24	0,027 [um]
25	0,013 [um]

EFFICIENT DATA COUNT: 25

MAX:	0,058 [um]
MIN:	-0,015 [um]
RANGE:	0,073 [um]
AVERAGE:	0,018 [um]
3-SIGMA:	0,049 [um]



Auto Alignment Accuracy - Machine to Machine (S12 - S19) Mode 1 - 5 Wafers.

IVS Data File : Device-CANON Level-AGA Job Plan-RESIST Lot # SSSM1DAY1

Wafer One.

Meas No	XL	XR	YL	YR	(XL+XR)/2	(YL+YR)/2
1	0.035	-0.005	0.006	-0.015	0.015	0.001
2	0.027	-0.002	0.008	-0.011	0.013	0.001
3	0.033	-0.003	0.000	-0.012	0.015	0.001
4	0.017	-0.022	0.019	0.004	-0.003	0.008
5	0.008	-0.022	0.033	0.030	0.008	0.008
6	0.005	-0.035	0.014	0.011	-0.015	0.011
7	0.029	-0.011	0.004	-0.001	0.009	0.001
8	0.030	-0.008	-0.001	-0.011	0.012	0.001
9	0.021	-0.008	0.006	-0.015	0.015	0.001
10	0.026	-0.010	0.018	-0.006	0.008	0.001
11	0.026	-0.017	-0.002	-0.007	-0.004	0.001
12	0.010	-0.018	0.002	-0.014	-0.004	0.001
13	0.008	-0.028	0.003	-0.004	-0.016	0.001
14	0.004	-0.032	0.015	0.010	-0.014	0.001
15	0.004	-0.037	0.019	0.034	-0.018	0.001
16	0.000	-0.034	0.018	0.025	-0.017	0.001
17	-0.001	-0.024	0.014	0.015	-0.003	0.001
18	0.017	-0.024	0.018	0.015	-0.003	0.001
19	0.025	-0.007	0.008	-0.001	0.009	0.001
20	0.018	-0.016	0.003	-0.002	0.001	0.001
21	0.021	-0.009	0.005	-0.009	0.006	0.001
22	0.020	-0.007	0.014	-0.013	0.006	0.001
23	0.016	-0.012	0.008	-0.001	0.002	0.001
24	0.011	-0.025	0.009	-0.015	-0.003	0.001
25	0.018	-0.025	-0.009	-0.009	-0.003	0.001
26	0.004	-0.023	0.000	0.008	-0.009	0.001
27	0.008	-0.030	0.012	0.016	-0.011	0.001
28	0.001	-0.026	0.028	0.034	-0.013	0.001
29	0.016	-0.005	0.000	0.023	0.005	0.001
30	0.017	-0.006	0.009	-0.001	0.006	0.001
31	0.034	-0.007	-0.012	-0.002	0.014	0.001
32	0.036	-0.008	0.001	-0.026	0.014	0.001

Mean	0.008	0.001	0.001
3 Sigma	0.029	0.047	0.031
Mean + 3 Sigma	0.037	0.048	0.032

Wafer Two.

XL	XR	YL	YR	(XL+XR)/2	(YL+YR)/2
0.018	-0.011	0.018	-0.019	0.003	0.000
0.012	-0.029	-0.001	-0.020	-0.009	-0.009
0.002	-0.022	-0.001	-0.008	-0.010	-0.008
-0.006	-0.035	0.019	-0.003	-0.020	0.008
-0.002	-0.035	0.021	0.011	-0.018	0.004
0.006	-0.027	0.013	0.007	-0.010	0.007
0.013	-0.024	0.013	-0.005	-0.005	0.004
0.010	-0.015	0.012	-0.008	0.003	0.003
0.024	-0.013	0.023	-0.011	0.005	0.007
0.015	-0.001	0.031	-0.001	0.011	0.001
0.020	-0.010	0.041	0.011	0.005	0.007
0.011	-0.018	0.016	0.001	0.004	0.001
0.015	-0.026	0.020	0.003	-0.003	0.001
0.010	-0.036	0.016	0.017	-0.020	0.003
-0.005	-0.030	0.038	0.037	-0.013	0.003
0.004	-0.025	0.027	0.023	0.000	0.000
0.019	-0.015	0.004	-0.002	0.002	0.002
0.025	-0.011	0.023	0.008	0.007	0.007
0.020	-0.005	0.021	0.012	0.007	0.007
0.024	-0.010	0.032	0.002	0.007	0.007
0.038	0.007	0.044	0.028	0.023	0.023
0.042	-0.008	0.036	-0.005	0.017	0.017
0.021	-0.003	0.016	0.007	0.009	0.009
0.018	-0.011	0.020	0.014	0.004	0.004
0.019	-0.021	0.028	0.022	-0.001	-0.001
-0.003	-0.013	0.030	0.040	-0.008	-0.008
0.041	-0.012	0.035	0.034	0.014	0.014
0.033	0.008	0.033	0.023	0.020	0.020
0.033	0.015	0.015	0.019	0.024	0.024
0.064	0.023	0.033	-0.002	0.043	0.043

Mean	0.022	0.008	0.002
3 Sigma	0.034	0.045	0.042
Mean + 3 Sigma	0.056	0.053	0.044

Wafer Three.

XL	XR	YL	YR	(XL+XR)/2	(YL+YR)/2
0.011	-0.023	0.010	-0.013	-0.006	-0.014
0.002	-0.030	-0.001	-0.021	-0.014	-0.014
0.009	-0.021	-0.008	-0.014	-0.006	-0.006
0.008	-0.030	0.001	-0.017	-0.011	-0.011
0.004	-0.027	0.002	0.008	-0.012	-0.012
0.027	-0.027	0.004	-0.009	0.000	0.000
0.013	-0.021	0.004	-0.016	-0.004	-0.004
0.012	-0.017	0.003	-0.009	-0.003	-0.003
-0.002	-0.030	0.018	0.000	-0.018	-0.018
0.015	-0.030	0.036	0.014	-0.008	-0.008
0.008	-0.029	0.015	0.002	-0.011	-0.011
0.011	-0.024	0.013	0.001	-0.008	-0.008
0.013	-0.031	0.011	0.009	-0.009	-0.009
0.015	-0.020	0.011	0.023	-0.003	-0.003
0.020	-0.018	0.021	0.024	0.001	0.001
0.028	-0.018	0.012	0.012	0.005	0.005
0.022	-0.008	-0.001	-0.001	0.008	0.008
0.028	-0.009	0.007	-0.011	0.010	0.010
0.019	-0.005	0.032	0.010	0.007	0.007
0.019	-0.015	0.039	0.015	0.002	0.002
0.020	-0.008	0.044	0.022	0.007	0.007
0.026	-0.008	0.032	0.015	0.009	0.009
0.021	-0.014	0.025	0.014	0.004	0.004
0.023	-0.014	0.014	0.015	0.005	0.005
0.030	-0.003	0.022	0.019	0.010	0.010
0.044	0.009	0.016	0.035	0.026	0.026
0.035	0.007	0.026	0.011	0.021	0.021
0.043	0.022	0.015	0.018	0.032	0.032
0.058	0.010	0.028	0.008	0.034	0.034

Mean	0.016	0.006	0.002
3 Sigma	0.039	0.042	0.038
Mean + 3 Sigma	0.054	0.048	0.041

Wafer Four.

XL	XR	YL	YR	(XL+XR)/2	(YL+YR)/2
0.023	-0.026	0.001	-0.032	-0.002	-0.002
0.005	-0.025	-0.008	-0.037	-0.010	-0.010
-0.002	-0.023	-0.012	-0.028	-0.012	-0.012
-0.003	-0.035	-0.001	-0.020	-0.019	-0.019
-0.010	-0.043	0.001	-0.004	-0.028	-0.028
-0.004	-0.047	-0.002	-0.020	-0.025	-0.025
0.006	-0.034	-0.004	-0.021	-0.014	-0.014
0.014	-0.020	-0.002	-0.020	-0.003	-0.003
0.027	-0.017	0.009	-0.019	0.005	0.005
0.013	-0.013	0.025	-0.017	0.000	0.000
0.018	-0.018	0.046	0.012	0.000	0.000
0.014	-0.030	0.022	0.002	-0.008	-0.008
0.004	-0.024	0.017	-0.005	-0.018	-0.018
0.001	-0.037	0.006	0.001	-0.015	-0.015
0.002	-0.043	0.010	0.013	-0.021	-0.021
-0.004	-0.029	0.023	0.016	-0.017	-0.017
0.005	-0.030	0.012	0.006	-0.013	-0.013
0.006	-0.020	0.000	-0.008	-0.007	-0.007
0.000	-0.024	0.019	-0.002	-0.012	-0.012
0.018	-0.030	0.024	0.006	-0.006	-0.006
0.015	-0.001	0.038	0.007	0.007	0.007
0.023	-0.010	0.048	0.026	0.006	0.006
0.034	-0.007	0.059	0.018	0.014	0.014
0.021	-0.019	0.031	0.008	0.001	0.001
0.010	-0.022	0.021	0.008	-0.006	-0.006
0.007	-0.034	0.026	0.024	-0.013	-0.013
0.005	-0.023	0.027	0.007	-0.009	-0.009
0.023	-0.010	0.034	0.027	0.007	0.007
0.031	-0.004	0.039	0.026	0.013	0.013
0.028	0.003	0.036	0.036	0.016	0.016
0.043	0.005	0.044	0.023	0.024	0.024

Mean	0.018	0.001	-0.008
3 Sigma	0.052	0.058	0.037
Mean + 3 Sigma	0.070	0.058	0.042

Wafer Five.

XL	XR	YL	YR	(XL+XR)/2	(YL+YR)/2
0.026	-0.018	0.017	-0.002	0.004	0.004
0.016	-0.017	0.012	-0.006	-0.001	-0.001
0.018	-0.017	0.017	0.008	0.001	0.001
0.023	-0.002	0.032	0.008	0.010	0.010
0.008	-0.021	0.028	0.018	-0.008	-0.008
0.008	-0.038	0.021	0.010	-0.014	-0.014
0.012	-0.019	0.005	0.002	-0.004	-0.004
0.016	-0.019	0.016	0.010	-0.001	-0.001
0.013	-0.018	0.018	0.000	-0.002	-0.002
0.022	-0.011	0.032	-0.002	0.005	0.005
0.008	-0.031	0.039	0.003	-0.012	-0.012
0.012	-0.016	0.011	-0.013	-0.002	-0.002
0.007	-0.019	0.008	-0.014	-0.009	-0.009
0.010	-0.020	0.005	-0.009	-0.005	-0.005
0.014	-0.030	0.013	0.012	-0.008	-0.008
0.013	-0.024	0.017	0.012	-0.006	-0.006
0.011	-0.022	0.015	0.019	-0.005	-0.005
0.018	-0.023	0.006	-0.005	-0.002	-0.002
0.013	-0.018	0.007	-0.009	-0.003	-0.003
0.015	-0.017	0.006	-0.017	-0.001	-0.001
0.018	-0.021	0.009	-0.007	-0.002	-0.002
0.010	-0.025	0.019	-0.008	-0.006	-0.006
0.017	-0.019	0.024	0.000	-0.001	-0.001
0.018	-0.012	0.013	0.013	0.000	0.000
0.026	-0.025	0.003	-0.010	-0.006	-0.006
0.012	-0.010	0.008	-0.005	-0.001	-0.001
0.018	-0.026	0.010	0.004	-0.005	-0.005
0.017	-0.028	0.010	0.008	-0.007	-0.007
0.031	-0.008	-0.006	0.003	0.011	0.011
0.038	-0.001	0.010	-0.015	0.019	0.019
0.032	0.003	-0.004	0.011	0.018	0.018
0.032	0.006	0.005	-0.019	0.019	0.019

Mean	0.012	-0.001	0.000
3 Sigma	0.033	0.030	0.024
Mean + 3 Sigma	0.045	0.032	0.024



Auto Alignment Accuracy - Machine to Machine (St12 - St19) Mode 2 - 5 Wafers.

IVS Data File : Device-CANON Level-AGA Job Plan-RESIST Lot # S9SSM/DAY1

Wafer One.

Meas No	XL	XR	YL	YR	[XL+XR]/2	[YL+YR]/2
1	0.032	-0.005	-0.002	-0.028	0.014	-0.014
2	0.021	-0.003	0.004	-0.022	0.009	-0.009
3	0.030	-0.006	0.003	-0.010	0.012	-0.012
4	0.038	-0.008	0.013	0.017	0.015	0.005
5	0.007	-0.015	0.035	0.033	-0.004	0.033
6	0.020	-0.016	0.030	0.012	0.002	0.022
7	0.026	-0.007	0.007	-0.006	0.009	-0.006
8	0.022	-0.007	0.005	-0.013	0.007	-0.013
9	0.023	-0.018	0.000	-0.018	0.002	-0.018
10	0.029	0.011	0.009	-0.031	0.020	-0.011
11	0.016	-0.012	0.015	-0.011	0.002	-0.011
12	0.015	-0.014	0.008	-0.019	0.000	-0.019
13	0.012	-0.014	0.005	-0.023	-0.001	-0.023
14	0.015	-0.021	0.009	-0.008	-0.003	-0.008
15	0.024	-0.014	0.023	0.010	0.005	0.016
16	0.001	-0.036	0.037	0.035	-0.016	0.035
17	0.007	-0.030	0.043	0.038	-0.011	0.038
18	0.016	-0.027	0.015	0.020	-0.005	0.020
19	0.014	-0.012	0.009	-0.005	0.001	-0.005
20	0.017	-0.017	0.010	-0.012	0.000	-0.012
21	0.023	-0.016	0.010	-0.015	0.003	-0.015
22	0.012	-0.015	0.005	-0.027	-0.002	-0.027
23	0.022	-0.018	0.010	-0.017	0.002	-0.017
24	0.019	-0.015	-0.003	-0.012	0.002	-0.012
25	0.031	-0.020	0.006	-0.012	0.005	-0.012
26	0.014	-0.008	0.011	0.005	0.003	0.003
27	0.022	-0.021	0.028	0.012	0.000	0.012
28	0.005	-0.015	0.038	0.046	-0.005	0.046
29	0.046	0.002	0.027	0.021	0.024	0.021
30	0.032	0.005	0.019	0.006	0.019	0.006
31	0.037	-0.008	0.008	-0.003	0.015	-0.003
32	0.040	0.000	0.007	-0.025	0.020	-0.025
Mean	0.014	-0.002	0.004	-0.002	0.004	-0.002
3 Sigma	0.037	0.063	0.028	0.028	0.037	0.063
Mean + 3 Sigma	0.051	0.065	0.032	0.032	0.041	0.065

Wafer Two.

Meas No	XL	XR	YL	YR	[XL+XR]/2	[YL+YR]/2
1	0.035	-0.006	-0.002	-0.025	0.015	-0.015
2	0.016	-0.015	0.003	-0.023	0.001	-0.023
3	0.013	-0.011	0.008	-0.006	0.001	-0.006
4	0.030	-0.016	0.023	-0.005	0.007	-0.005
5	0.016	-0.019	0.027	0.024	-0.004	0.024
6	0.020	-0.024	0.014	0.005	-0.004	0.005
7	0.020	-0.017	0.008	-0.008	0.001	-0.008
8	0.029	-0.013	0.002	-0.017	0.008	-0.017
9	0.023	-0.008	-0.004	-0.018	0.008	-0.018
10	0.028	-0.008	0.003	-0.035	0.010	-0.035
11	0.026	-0.011	0.017	-0.003	0.008	-0.003
12	0.018	-0.014	0.015	-0.020	0.002	-0.020
13	0.021	-0.017	0.013	-0.013	0.002	-0.013
14	0.012	-0.020	0.012	-0.002	-0.004	-0.002
15	0.016	-0.020	0.023	0.008	-0.002	0.008
16	0.001	-0.032	0.031	0.033	-0.016	0.033
17	0.008	-0.017	0.037	0.037	-0.005	0.037
18	0.020	-0.023	0.025	0.020	-0.001	0.020
19	0.025	-0.016	0.011	0.000	0.004	0.011
20	0.026	-0.019	0.018	-0.002	0.003	-0.002
21	0.023	-0.008	0.014	-0.002	0.007	0.014
22	0.038	-0.003	0.023	-0.010	0.018	-0.010
23	0.030	0.010	0.011	-0.001	0.020	0.011
24	0.030	-0.004	0.008	-0.007	0.013	-0.007
25	0.031	-0.015	0.014	-0.004	0.008	-0.015
26	0.018	-0.017	0.012	0.002	0.003	-0.017
27	0.015	-0.019	0.022	0.025	-0.002	0.022
28	0.033	-0.023	0.035	0.035	-0.002	0.035
29	0.021	-0.005	0.025	0.030	0.011	0.025
30	0.038	-0.006	0.012	0.009	0.016	-0.006
31	0.048	0.014	0.017	-0.009	0.031	0.017
Mean	0.016	-0.001	0.001	-0.005	0.005	-0.005
3 Sigma	0.030	0.054	0.027	0.027	0.030	0.054
Mean + 3 Sigma	0.046	0.055	0.027	0.027	0.035	0.055

Wafer Three.

Meas No	XL	XR	YL	YR	[XL+XR]/2	[YL+YR]/2
1	0.037	-0.012	-0.005	-0.029	0.013	-0.029
2	0.022	-0.014	-0.001	-0.029	0.004	-0.029
3	0.015	-0.008	-0.009	-0.025	0.003	-0.025
4	0.039	-0.003	0.011	-0.012	0.021	-0.012
5	0.032	-0.009	0.008	0.009	0.012	0.009
6	0.038	-0.003	0.008	-0.011	0.018	-0.011
7	0.021	-0.017	0.004	-0.010	0.002	-0.010
8	0.018	-0.013	0.003	-0.022	0.002	-0.022
9	0.014	-0.011	0.016	-0.011	0.002	-0.011
10	0.017	-0.015	0.023	0.007	0.000	0.023
11	0.026	-0.008	0.001	-0.022	0.009	-0.022
12	0.024	-0.005	0.005	-0.015	0.009	-0.015
13	0.021	-0.019	0.010	0.004	0.001	0.010
14	0.023	-0.009	0.018	0.014	0.007	0.018
15	0.028	-0.016	0.027	0.033	0.007	0.027
16	0.031	-0.001	0.005	-0.008	0.010	-0.008
17	0.018	-0.019	0.016	-0.004	0.000	-0.019
18	0.024	-0.018	0.027	-0.007	0.003	-0.018
19	0.030	-0.010	0.030	0.010	0.010	0.030
20	0.026	-0.002	0.026	0.007	0.012	0.026
21	0.024	-0.024	0.013	0.003	0.003	-0.024
22	0.017	-0.004	0.013	0.003	0.006	0.013
23	0.027	-0.020	0.019	0.033	0.010	0.019
24	0.029	-0.007	0.016	0.029	0.019	0.016
25	0.049	0.014	0.021	0.013	0.031	0.021
26	0.033	-0.001	0.012	0.012	0.016	-0.001
27	0.044	0.008	0.028	-0.004	0.026	0.028
Mean	0.013	-0.001	0.009	-0.009	0.009	-0.009
3 Sigma	0.030	0.050	0.024	0.024	0.030	0.050
Mean + 3 Sigma	0.043	0.051	0.033	0.033	0.039	0.051

Wafer Four.

Meas No	XL	XR	YL	YR	[XL+XR]/2	[YL+YR]/2
1	0.032	-0.002	-0.015	-0.025	0.015	-0.025
2	0.035	0.002	-0.006	-0.022	0.019	-0.022
3	0.017	-0.018	-0.004	-0.009	-0.001	-0.009
4	0.014	-0.026	0.009	-0.007	-0.006	-0.026
5	0.003	-0.035	0.019	0.019	0.019	0.019
6	0.020	-0.021	0.014	0.005	0.000	-0.021
7	0.020	-0.018	0.008	0.002	0.001	-0.018
8	0.038	-0.008	0.005	-0.010	0.010	-0.008
9	0.021	-0.011	0.007	-0.012	0.005	-0.011
10	0.036	-0.002	0.005	-0.023	0.017	-0.023
11	0.029	-0.002	0.016	0.006	0.014	0.016
12	0.030	-0.009	0.010	-0.011	0.010	-0.009
13	0.022	-0.013	0.006	-0.016	0.004	-0.013
14	0.006	-0.024	0.006	-0.001	-0.008	-0.024
15	0.006	-0.033	0.015	0.010	-0.013	-0.033
16	0.002	-0.037	0.036	0.041	-0.017	0.036
17	0.009	-0.029	0.013	0.020	-0.012	-0.029
18	0.019	-0.028	0.009	0.011	-0.003	-0.028
19	0.026	-0.018	0.011	-0.004	0.004	-0.018
20	0.028	-0.009	0.015	-0.004	0.009	-0.009
21	0.036	0.006	0.020	-0.007	0.022	0.020
22	0.030	-0.002	0.009	0.005	0.015	-0.002
23	0.030	-0.016	0.011	-0.006	0.007	-0.016
24	0.008	-0.022	0.011	-0.005	0.000	-0.022
25	0.008	-0.026	0.021	0.028	-0.009	-0.026
26	-0.002	-0.044	0.043	0.038	-0.023	0.043
27	0.020	-0.017	0.021	0.042	0.002	0.021
28	0.019	-0.009	0.010	0.014	0.005	-0.009
29	0.034	-0.010	0.014	0.011	0.012	-0.010
30	0.050	0.001	0.016	0.002	0.026	0.001
Mean	0.012	-0.004	0.004	-0.004	0.003	-0.004
3 Sigma	0.033	0.053	0.038	0.038	0.033	0.053
Mean + 3 Sigma	0.045	0.058	0.042	0.042	0.036	0.049

Wafer Five.

XL	XR	YL	YR	$(XL+XR)/2$	$(YL+YR)/2$
0.017	-0.010	0.007	-0.011	0.003	-0.002
0.024	-0.012	0.005	-0.016	0.006	-0.006
0.020	-0.012	0.007	-0.023	0.004	-0.008
0.014	-0.018	0.003	0.012	-0.002	0.003
0.006	-0.014	0.017	0.022	-0.004	0.017
0.014	-0.027	0.016	-0.002	-0.006	-0.027
0.015	-0.016	-0.003	0.008	-0.001	-0.016
0.020	-0.019	0.000	-0.004	0.000	-0.019
0.026	-0.007	-0.027	-0.011	0.009	-0.027
0.019	-0.030	0.023	-0.005	-0.006	-0.030
0.023	-0.020	0.032	-0.007	0.002	-0.020
0.017	-0.020	0.004	-0.011	-0.001	-0.020
0.008	-0.023	0.007	-0.012	-0.008	-0.023
0.013	-0.024	0.002	-0.013	-0.005	-0.024
0.017	0.008	0.012	0.017	0.012	0.017
0.005	-0.020	0.021	0.031	-0.007	-0.020
0.008	-0.014	0.018	0.018	-0.003	-0.014
0.021	-0.008	-0.001	0.007	-0.004	-0.008
0.024	-0.008	0.002	-0.014	0.008	-0.008
0.037	-0.017	0.016	-0.010	0.010	-0.017
0.022	-0.004	0.019	0.004	0.009	-0.004
0.041	-0.008	0.025	0.002	0.016	-0.008
0.035	0.003	0.012	0.000	0.019	0.003
0.037	-0.011	0.012	-0.015	0.013	-0.011
0.027	-0.009	0.015	-0.003	0.009	-0.009
0.023	-0.011	0.017	0.017	0.010	-0.011
0.029	-0.007	0.022	0.029	0.011	-0.007
0.043	0.043	0.043	0.011	0.022	0.043
0.039	0.016	0.021	-0.002	0.028	0.016
0.046	0.012	0.013	0.018	0.029	0.046
0.062	0.020	0.009	0.002	0.041	0.062

Mean

3 Sigma

Mean + 3 Sigma



Auto Alignment Accuracy - Machine to Machine (S12 - S19) Mode 4 - 5 Wafers.

IVS Data File : Device-CANON Level-AGA Job Plan-RESIST Lot # S9SSM1DAY1

Wafer One.

Meas No	XL	XR	YL	YR	XL+XR/2
1	0.036	0.000	-0.005	-0.024	0.018
2	0.028	0.002	0.001	-0.029	0.015
3	0.027	-0.003	-0.008	0.012	0.012
4	0.019	-0.019	0.016	0.002	0.000
5	0.005	-0.023	0.009	0.011	-0.009
6	0.026	-0.023	0.009	-0.008	0.002
7	0.027	-0.008	0.003	-0.010	0.010
8	0.031	0.003	-0.012	-0.014	0.017
9	0.021	-0.012	0.004	-0.021	0.005
10	0.036	0.016	0.010	-0.024	0.026
11	0.030	-0.009	0.023	-0.001	0.011
12	0.034	-0.003	0.013	-0.012	0.016
13	0.025	-0.010	0.004	-0.022	0.008
14	0.023	-0.013	-0.002	-0.016	0.005
15	0.018	-0.021	0.007	0.012	-0.001
16	0.011	-0.028	0.019	0.025	-0.008
17	0.015	-0.016	0.009	0.015	-0.006
18	0.021	-0.010	0.000	-0.004	0.006
19	0.029	-0.003	-0.002	-0.017	0.013
20	0.028	-0.008	0.012	-0.012	0.010
21	0.033	0.001	0.013	-0.008	0.017
22	0.030	0.001	0.020	0.000	0.015
23	0.027	-0.006	0.008	-0.017	0.011
24	0.028	-0.009	-0.001	-0.005	0.010
25	0.016	-0.008	0.000	-0.004	0.004
26	0.016	-0.009	0.013	0.029	0.004
27	0.017	-0.019	0.033	0.028	-0.001
28	0.027	-0.002	0.018	0.027	0.012
29	0.039	0.014	0.014	0.001	0.026
30	0.044	0.003	0.005	0.002	0.023
31	0.040	0.018	0.019	-0.004	0.029
32					

Mean
3 Sigma
Mean + 3 Sigma

YL
YR
XL+XR/2

Wafer Two.

Meas No	XL	XR	YL	YR	XL+XR/2
1	0.039	-0.004	0.002	-0.023	0.018
2	0.033	0.008	-0.006	-0.035	0.021
3	0.035	-0.012	-0.006	-0.025	0.012
4	0.008	-0.022	0.017	-0.014	-0.007
5	0.041	0.029	0.017	0.018	0.035
6	0.037	-0.007	0.014	-0.008	0.015
7	0.042	0.017	0.006	-0.007	0.029
8	0.034	-0.012	0.005	-0.007	0.011
9	0.027	-0.005	-0.001	-0.021	0.011
10	0.038	-0.008	0.017	-0.029	0.015
11	0.041	-0.011	0.016	-0.004	0.015
12	0.036	-0.004	0.009	-0.004	0.016
13	0.033	-0.006	0.008	-0.005	0.014
14	0.036	-0.009	0.004	-0.005	0.014
15	0.027	-0.011	-0.002	0.020	0.008
16	0.043	-0.007	0.029	0.046	0.018
17	0.027	-0.008	0.005	0.026	0.009
18	0.029	-0.010	0.001	0.008	0.010
19	0.041	-0.002	0.011	0.002	0.020
20	0.043	0.003	0.006	-0.001	0.023
21	0.049	0.008	0.021	-0.004	0.029
22	0.043	-0.008	0.030	0.012	0.018
23	0.029	-0.005	0.009	0.009	0.012
24	0.040	-0.013	0.005	0.002	0.014
25	0.032	-0.005	-0.003	0.006	0.014
26	0.029	0.005	0.012	0.043	0.017
27	0.037	-0.015	0.036	0.036	0.011
28	0.032	-0.015	0.021	0.045	0.009
29	0.042	0.012	0.012	0.037	0.027
30	0.039	0.005	0.001	0.036	0.022
31	0.049	0.007	0.018	0.013	0.028
32					

Mean
3 Sigma
Mean + 3 Sigma

YL
YR
XL+XR/2

Wafer Three.

Meas No	XL	XR	YL	YR	XL+XR/2
1	0.043	-0.002	0.004	-0.013	0.021
2	0.027	-0.014	-0.002	-0.022	0.006
3	0.020	-0.009	-0.009	-0.019	0.006
4	0.032	-0.014	-0.001	-0.005	0.009
5	0.025	-0.013	0.022	0.032	0.006
6	0.028	-0.016	0.002	0.005	0.008
7	0.034	-0.009	0.004	-0.010	0.012
8	0.033	-0.003	0.004	-0.006	0.015
9	0.037	-0.004	-0.001	-0.005	0.017
10	0.036	0.007	0.021	-0.017	0.021
11	0.039	-0.012	0.028	0.004	0.013
12	0.026	-0.015	0.012	0.007	0.005
13	0.028	-0.010	0.011	-0.004	0.009
14	0.034	-0.004	0.002	0.000	0.015
15	0.026	-0.020	0.009	0.007	0.003
16	0.022	-0.024	0.019	0.032	-0.001
17	0.027	-0.005	0.000	0.003	0.011
18	0.039	-0.008	0.008	0.001	0.016
19	0.043	-0.003	0.015	0.003	0.020
20	0.038	0.001	0.026	0.008	0.019
21	0.033	0.011	0.034	0.011	0.022
22	0.041	-0.001	0.007	0.000	0.020
23	0.038	-0.010	0.010	0.006	0.014
24	0.019	-0.016	0.010	0.011	0.001
25	0.027	-0.010	0.020	0.023	0.008
26	0.006	-0.016	0.027	0.025	-0.005
27	0.032	-0.010	0.011	0.019	0.011
28	0.036	-0.002	0.011	0.004	0.017
29	0.048	0.003	-0.001	0.006	0.025
30	0.063	0.016	0.019	-0.005	0.040
31					
32					

Mean
3 Sigma
Mean + 3 Sigma

YL
YR
XL+XR/2

Wafer Four.

Meas No	XL	XR	YL	YR	XL+XR/2
1	0.027	-0.009	0.009	-0.039	0.009
2	0.038	-0.007	0.002	-0.037	0.016
3	0.035	-0.002	0.007	-0.034	0.016
4	0.021	0.005	0.031	0.006	0.013
5	0.030	-0.008	0.011	0.006	0.011
6	0.034	-0.012	0.010	-0.015	0.011
7	0.037	-0.006	0.002	-0.018	0.016
8	0.040	-0.007	-0.001	-0.022	0.016
9	0.030	-0.010	0.010	-0.025	0.010
10	0.028	-0.012	0.025	-0.022	0.008
11	0.033	-0.007	0.029	-0.002	0.013
12	0.020	-0.001	0.011	0.001	0.009
13	0.036	0.002	-0.017	0.018	0.019
14	0.001	-0.014	-0.012	0.004	-0.006
15	0.024	-0.013	0.003	0.002	0.006
16	0.022	-0.010	0.022	0.010	0.006
17	0.033	0.004	0.029	0.023	0.018
18	0.040	-0.007	0.007	0.013	0.016
19	0.073	0.039	0.031	-0.038	0.056
20	0.034	0.005	0.021	-0.014	0.020
21	0.034	-0.001	0.007	-0.002	0.017
22	0.048	0.004	0.030	-0.004	0.026
23	0.053	0.034	0.040	0.031	0.043
24	0.054	0.015	0.032	0.033	0.035
25	0.044	0.007	0.029	0.018	0.026
26	0.044	0.002	0.018	0.008	0.023
27	0.052	0.015	0.028	0.041	0.033
28	0.056	0.008	0.031	0.038	0.032
29	0.050	0.031	0.034	0.041	0.040
30	0.060	0.029	0.014	0.040	0.044
31	0.056	0.025	0.021	0.039	0.041
32	0.068	0.023	0.035	0.028	0.045

Mean
3 Sigma
Mean + 3 Sigma

YL
YR
XL+XR/2

Wafer Five.

Meas No	XL	XR	YL	YR	XL+XR/2
1	0.035	-0.006	0.008	-0.004	0.015
2	0.036	-0.018	-0.001	-0.021	0.009
3	0.019	-0.020	-0.001	0.001	-0.001
4	0.011	-0.024	0.024	0.016	-0.007
5	0.013	-0.024	0.014	0.017	-0.006
6	0.023	-0.036	0.011	0.005	-0.007
7	0.023	-0.007	0.006	0.001	0.008
8	0.029	-0.013	-0.004	-0.007	0.008
9	0.035	-0.005	0.024	-0.007	0.015
10	0.033	-0.006	0.030	0.011	0.013
11	0.040	0.003	0.022	0.002	0.022
12	0.038	-0.011	0.010	0.010	0.013
13	0.023	-0.014	0.007	-0.005	0.006
14	0.026	-0.014	0.004	-0.005	0.006
15	0.022	-0.018	0.002	0.006	0.002
16	0.030	-0.013	0.016	0.026	0.009
17	0.039	-0.008	0.007	0.012	0.011
18	0.030	0.000	0.000	-0.005	0.020
19	0.049	0.004	0.016	0.005	0.028
20	0.049	0.008	0.018	0.010	0.029
21	0.053	0.004	0.028	0.008	0.029
22	0.054	0.019	0.024	0.015	0.037
23	0.058	0.024	0.011	0.007	0.041
24	0.053	0.006	0.016	0.005	0.029
25	0.046	0.008	0.007	0.012	0.027
26	0.050	0.013	0.007	0.022	0.031
27	0.039	0.001	0.013	0.025	0.020
28	0.052	0.011	-0.003	0.022	0.031
29	0.078	0.026	0.008	-0.001	0.052
30	0.055	0.032	0.008	0.012	0.051
31	0.068	0.035	0.011	0.000	0.051
32					

Mean
3 Sigma
Mean + 3 Sigma

YL
YR
XL+XR/2

Item: THROUGHPUT

32 Shot (die by die)

Installation Team

Date: 21-Jul-07
Engineer: Luhn / Wagner
Machine No.: 7072885
User ID: Stepper 12

Date	Jul	21	07	0.632662
Machine	FPA-3000	i5		
Job				
Tilt				
TVPA				
Auto				
Hot				
	Name	Compensatio	Mode	Die
	Measuremen	on	Chuck	by
	Focus	Mode	Smoothin	Bypass
	Line	Interface(HLI	AF	Loop
		Enable	Perform.	Mode
			Normal	Open
				Loop

wno	index	throughput[WPH]
1	4568	32066
2	4559	4638
3	4568	4736
4	4563	4660

<SUMMARY>

uload_wafer	load_wafer	tv_pre_align	aga	index	[ms]	throughput[WPH]
ave.	4563	4678	1156	6135	27815	129,4
wno	1st-step	step	####	####	SF_posi	SF_focu
	2	563	229,6	0	0	317
	3	563	229,4	0	0	316,8
	4	562	230,1	0	0	317
ave.	562,7	229,7	0	0	316,9	13,6

i4>

Item: **ROC ACCURACY**

Date: 18-Jul-07

Engineer: Peter Wells

Machine No.: 7072885

User ID: Stepper 12

1	XL	-0,056	YL	0,332	XR	0,123	YR	0,104 [um]
2	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
3	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
4	XL	-0,058	YL	0,332	XR	0,122	YR	0,103 [um]
5	XL	-0,056	YL	0,332	XR	0,123	YR	0,103 [um]
6	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
7	XL	-0,056	YL	0,332	XR	0,123	YR	0,103 [um]
8	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
9	XL	-0,057	YL	0,332	XR	0,123	YR	0,104 [um]
10	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
11	XL	-0,057	YL	0,332	XR	0,122	YR	0,103 [um]
12	XL	-0,058	YL	0,332	XR	0,121	YR	0,103 [um]
13	XL	-0,057	YL	0,332	XR	0,122	YR	0,104 [um]
14	XL	-0,058	YL	0,332	XR	0,122	YR	0,103 [um]
15	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
16	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
17	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
18	XL	-0,057	YL	0,331	XR	0,123	YR	0,103 [um]
19	XL	-0,056	YL	0,332	XR	0,123	YR	0,104 [um]
20	XL	-0,058	YL	0,332	XR	0,123	YR	0,103 [um]
21	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
22	XL	-0,056	YL	0,332	XR	0,123	YR	0,103 [um]
23	XL	-0,057	YL	0,332	XR	0,122	YR	0,103 [um]
24	XL	-0,057	YL	0,332	XR	0,122	YR	0,103 [um]
25	XL	-0,056	YL	0,332	XR	0,123	YR	0,103 [um]

EFFICIENT DATA COUNT 25

MAX:	XL	-0,056	YL	0,332	XR	0,123	YR	0,104 [um]
MIN:	XL	-0,058	YL	0,331	XR	0,121	YR	0,103 [um]
RANGE:	XL	0,002	YL	0,001	XR	0,002	YR	0,001 [um]
VERAGE:	XL	-0,057	YL	0,332	XR	0,123	YR	0,103 [um]
3-SIGMA:	XL	0,002	YL	0,001	XR	0,002	YR	0,001 [um]

MAX 0,002

Item: **RETICLE RELIABILITY**

Date: 17-Jul-07

Engineer: R.Sharpe

Machine No.: 7072885

User ID: Stepper 12

```
LAST COUNT: 75
LBtoCR : slot = 6
rf_cr_inqarm()
rf_lb_inqxst: sslot = 6
LBtoCR...C-Robot trun
rf_cr_turn()
LBtoCR...LB-Elevator slot[6]
rf_lb_inqslot:
rf_lb_slotl: sslot = 6
LBtoCR...C-Robot turn TaskWait
rf_cr_vacon()
rf_cr_stretch()
rf_cr_chkvac()
rf_lb_led: sslot = 6, clr= 1, sig = 2
rf_lb_raise:
rf_cr_inqvac()
rf_cr_bend()
CRtoXLB :
rf_cr_inqarm()
rf_cr_chkvac()
rf_lb_xinxst:
rf_lb_xinxst:
rf_cr_turn()
rf_lb_xled: clr= 1, sig = 0
rf_lb_xled: clr= 0, sig = 1
rf_lb_slotu:
LB_InqStatTrayXLB..:
rf_cr_stretch()
rf_cr_vacoff()
rf_lb_set:
rf_lb_xinxst:
rf_lb_led: sslot = 6, clr= 1, sig = 0
LB_InqStatTrayXLB..:
rf_cr_bend()
Response(000000e6): 0 0 0 0 (0 ints) ... 4712962 ms
```

Count 75

Canon *FPA-3000i5+*

Item: Wafer Feed Reliability

Installation Team

Date: 22-Jul-07

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper12

The image shows the Atari 2600 control panel for the game 'The Great Escape'. The panel is divided into several sections:

- Top Section:** Contains a 'SEQUENCE' display showing '0218: Start Assembling' and a 'WARNING' display. Below these are buttons for 'DETAILS' and 'PAGE NO.' (displaying '1/6').
- Left Section:** Features a 'DECORATION' display showing 'Museum - 10000 \$3000' and a 'Status' display showing 'Explo GOOD', 'Explo FAIL', and 'Explo Error'. Below these are buttons for 'JOYSTICK' and 'START'.
- Center Section:** A large 10x10 grid with a circular target area. The grid contains numbers 1 through 10. The target area is a circle with a crosshair.
- Right Section:** Contains a 'JOYSTICK' and a 'START' button.

Canon**Coma Adjustment Calculation.**

Machine No :	707 2885	Reticle Used :	705	Feature Size :	0,35	um
Machine ID :	Stepper 12	Resist :	Olin	Feature Type :	Line & Space.	
Customer :	AMI Semiconductor	Resist Thickness :	0,860	NA :	0,65	
Date :	20th July 2007.	Exposure Dose :	2500	Sigma :	0,63	
		Best Focus (T/B) :	0,7	Focus Measured :	0,4	um

Site	Horizontal.						Vertical.					
	Bottom	Top	C Meas	Alpha	Beta	Difference	Bottom	Top	C Meas	Alpha	Beta	Difference
1	0,351	0,219	0,286	85,7	85,5	0,20	0,351	0,210	0,279	85,2	85,4	0,23
2	0,335	0,210	0,276	86,1	85,6	0,42	0,348	0,210	0,272	85,0	85,8	0,89
3	0,342	0,204	0,276	85,6	85,2	0,46	0,345	0,207	0,269	85,0	85,9	0,88
4	0,348	0,217	0,283	85,6	85,6	0,00	0,345	0,217	0,276	85,4	86,1	0,66
5	0,342	0,201	0,266	85,0	85,6	0,66	0,348	0,201	0,266	84,6	85,6	1,08
6	0,345	0,210	0,273	85,2	85,9	0,66	0,345	0,213	0,276	85,4	85,8	0,44
7	0,338	0,200	0,266	85,2	85,6	0,42	0,345	0,195	0,266	84,8	85,2	0,48
8	0,355	0,214	0,293	85,9	84,8	1,10	0,351	0,217	0,276	85,0	86,1	1,07
9	0,348	0,200	0,272	85,0	85,2	0,22	0,351	0,204	0,276	85,0	85,2	0,22

Maximum Coma Angle Error Horizontal	1,10	Degrees
Maximum Coma Angle Error Vertical	1,08	Degrees

Centre to Four Corners Horizontal	0,39	Degrees
Centre to Four Corners Vertical	0,58	Degrees

Specification : Centre and Four Corners <2.0 Degrees, Angle for All sites <3.5 Degrees.

Item: **B SCOPE & C SCOPE TIS**

Date: 20-Jul-07

Engineer: Luhn /Wagner

Machine No.: 7072885

User ID: Stepper 12

1	B	Scope	Offset	Value	=	0,003 [um]
2	B	Scope	Offset	Value	=	0,001 [um]
3	B	Scope	Offset	Value	=	0,003 [um]
4	B	Scope	Offset	Value	=	0,004 [um]
5	B	Scope	Offset	Value	=	0 [um]
6	B	Scope	Offset	Value	=	0,002 [um]
7	B	Scope	Offset	Value	=	-0,004 [um]
8	B	Scope	Offset	Value	=	0,003 [um]
9	B	Scope	Offset	Value	=	0,002 [um]
10	B	Scope	Offset	Value	=	-0,001 [um]

Mean	:	0,001 [um]
3Sigma	:	0,006 [um]
Max	:	0,004 [um]
Min	:	-0,004 [um]
Range	:	0,007 [um]

1	C	Scope	Offset	Value	=	-0,005 [um]
2	C	Scope	Offset	Value	=	-0,009 [um]
3	C	Scope	Offset	Value	=	-0,004 [um]
4	C	Scope	Offset	Value	=	-0,008 [um]
5	C	Scope	Offset	Value	=	-0,008 [um]
6	C	Scope	Offset	Value	=	-0,005 [um]
7	C	Scope	Offset	Value	=	-0,009 [um]
8	C	Scope	Offset	Value	=	-0,004 [um]
9	C	Scope	Offset	Value	=	-0,009 [um]
10	C	Scope	Offset	Value	=	-0,006 [um]

Mean	:	-0,007 [um]
3Sigma	:	0,006 [um]
Max	:	-0,004 [um]
Min	:	-0,009 [um]

		TIS
B scope	1	nm
C scope	-7	nm

Canon

Depth of Focus Performance

Vertical				Horizontal			
UL	Bottom	Top	T/B	Angle	T/B	Angle	T/B
-0.60							
-0.50							
-0.40							
-0.30							
-0.20							
-0.10							
0.00	0.3856				0.4038		
0.10	0.3612				0.3567		
0.20	0.3368				0.3085		
0.30	0.3124				0.2603		
0.40	0.2880				0.2121		
0.50	0.2636				0.1639		
0.60	0.2392				0.1157		
0.70	0.2148				0.0675		
0.80	0.1904				0.0193		
0.90	0.1660				0.0000		
1.00	0.1416				0.0000		
1.10	0.1172				0.0000		
1.20	0.0928				0.0000		
1.30	0.0684				0.0000		
1.40	0.0440				0.0000		
1.50	0.0196				0.0000		
1.60	0.0000				0.0000		
1.70							
1.80							
1.90							
2.00							
Mean	0.3541				0.3560		

Vertical				Horizontal			
CL	Bottom	Top	T/B	Angle	T/B	Angle	T/B
-0.60							
-0.50							
-0.40							
-0.30							
-0.20							
-0.10							
0.00	0.3711				0.3782		
0.10	0.3594				0.3587		
0.20	0.3477				0.3392		
0.30	0.3360				0.3197		
0.40	0.3243				0.2999		
0.50	0.3126				0.2801		
0.60	0.3009				0.2603		
0.70	0.2892				0.2405		
0.80	0.2775				0.2207		
0.90	0.2658				0.2009		
1.00	0.2541				0.1811		
1.10	0.2424				0.1613		
1.20	0.2307				0.1415		
1.30	0.2190				0.1217		
1.40	0.2073				0.1019		
1.50	0.1956				0.0821		
1.60	0.1839				0.0623		
1.70	0.1722				0.0425		
1.80	0.1605				0.0227		
1.90	0.1488				0.0029		
2.00	0.1371				0.0000		
Mean	0.3552				0.3564		

Vertical				Horizontal			
DL	Bottom	Top	T/B	Angle	T/B	Angle	T/B
-0.60							
-0.50							
-0.40							
-0.30							
-0.20							
-0.10							
0.00	0.3819				0.3758		
0.10	0.3538				0.3593		
0.20	0.3257				0.3428		
0.30	0.2976				0.3263		
0.40	0.2695				0.3098		
0.50	0.2414				0.2933		
0.60	0.2133				0.2768		
0.70	0.1852				0.2603		
0.80	0.1571				0.2438		
0.90	0.1290				0.2273		
1.00	0.1009				0.2108		
1.10	0.0728				0.1943		
1.20	0.0447				0.1778		
1.30	0.0166				0.1613		
1.40	0.0000				0.1448		
1.50					0.1283		
1.60					0.1118		
1.70					0.0953		
1.80					0.0788		
1.90					0.0623		
2.00					0.0458		
Mean	0.3464				0.3525		

FPA-3000i5+

FPA-3000i5+

Vertical				Horizontal			
UR	Bottom	Top	T/B	Angle	T/B	Angle	T/B
-0.60							
-0.50							
-0.40							
-0.30							
-0.20	0.3796				0.3715		
-0.10	0.3595				0.3501		
0.00	0.3394				0.3288		
0.10	0.3193				0.3075		
0.20	0.2992				0.2862		
0.30	0.2791				0.2649		
0.40	0.2590				0.2436		
0.50	0.2389				0.2223		
0.60	0.2188				0.2010		
0.70	0.1987				0.1797		
0.80	0.1786				0.1584		
0.90	0.1585				0.1371		
1.00	0.1384				0.1158		
1.10	0.1183				0.0945		
1.20	0.0982				0.0732		
1.30	0.0781				0.0519		
1.40	0.0580				0.0306		
1.50	0.0379				0.0093		
1.60	0.0178				0.0000		
1.70	0.0000				0.0000		
1.80							
1.90							
2.00							
Mean	0.3598				0.3592		

Performance Summary

CD Depth of Focus @ 0.35um	1.26	um
Wall Angle Depth of Focus for 0.35um @ 81.9 deg	0.64	um
Mean CD (All points included)	0.3564	um
Linewidth Reproducibility within Field (3um Total Range H&V 9 points)	0.010	um
Min Wall Angle 9 points @ BF	84.8	Deg
Image Field Deviation (Including Tilt)	0.14	um
Distortion	0.08	um
Tilt X	4.17	ppm
Tilt Y	-1.25	ppm
V	4.35	ppm

Vertical				Horizontal			
CR	Bottom	Top	T/B	Angle	T/B	Angle	T/B
-0.60							
-0.50							
-0.40							
-0.30							
-0.20							
-0.10	0.3555				0.3675		
0.00	0.3557				0.3568		
0.10	0.3558				0.3519		
0.20	0.3558				0.3488		
0.30	0.3488				0.3518		
0.40	0.3537				0.3468		
0.50	0.3465				0.3468		
0.60	0.3465				0.3468		
0.70	0.3465				0.3468		
0.80	0.3465				0.3468		
0.90	0.3465				0.3468		
1.00	0.3465				0.3468		
1.10	0.3465				0.3468		
1.20	0.3465				0.3468		
1.30	0.3465				0.3468		
1.40	0.3465				0.3468		
1.50	0.3465				0.3468		
1.60	0.3465				0.3468		
1.70	0.3465				0.3468		
1.80	0.3465				0.3468		
1.90	0.3465				0.3468		
2.00	0.3465				0.3468		
Mean	0.3552				0.3558		

Vertical				Horizontal			
DR	Bottom	Top	T/B	Angle	T/B	Angle	T/B
-0.60							
-0.50							
-0.40							
-0.30							
-0.20							
-0.10							
0.00	0.3748				0.3757		
0.10	0.3685				0.3685		
0.20	0.3685				0.3596		
0.30	0.3477				0.3508		
0.40	0.3458				0.352		
0.50	0.3444				0.3496		
0.60	0.3444				0.3478		
0.70	0.3444				0.3462		
0.80	0.3444				0.3446		
0.90	0.3444				0.3430		
1.00	0.3444				0.3414		
1.10	0.3444				0.3398		
1.20	0.3444				0.3382		
1.30	0.3444				0.3366		
1.40	0.3444				0.3350		
1.50	0.3444				0.3334		
1.60	0.3444				0.3318		
1.70	0.3444				0.3302		
1.80	0.3444				0.3286		
1.90	0.3444				0.3270		
2.00	0.3444				0.3254		
Mean	0.3552				0.3537		

FPA-3000i5+

FPA-3000i5+

FPA-3000i5+

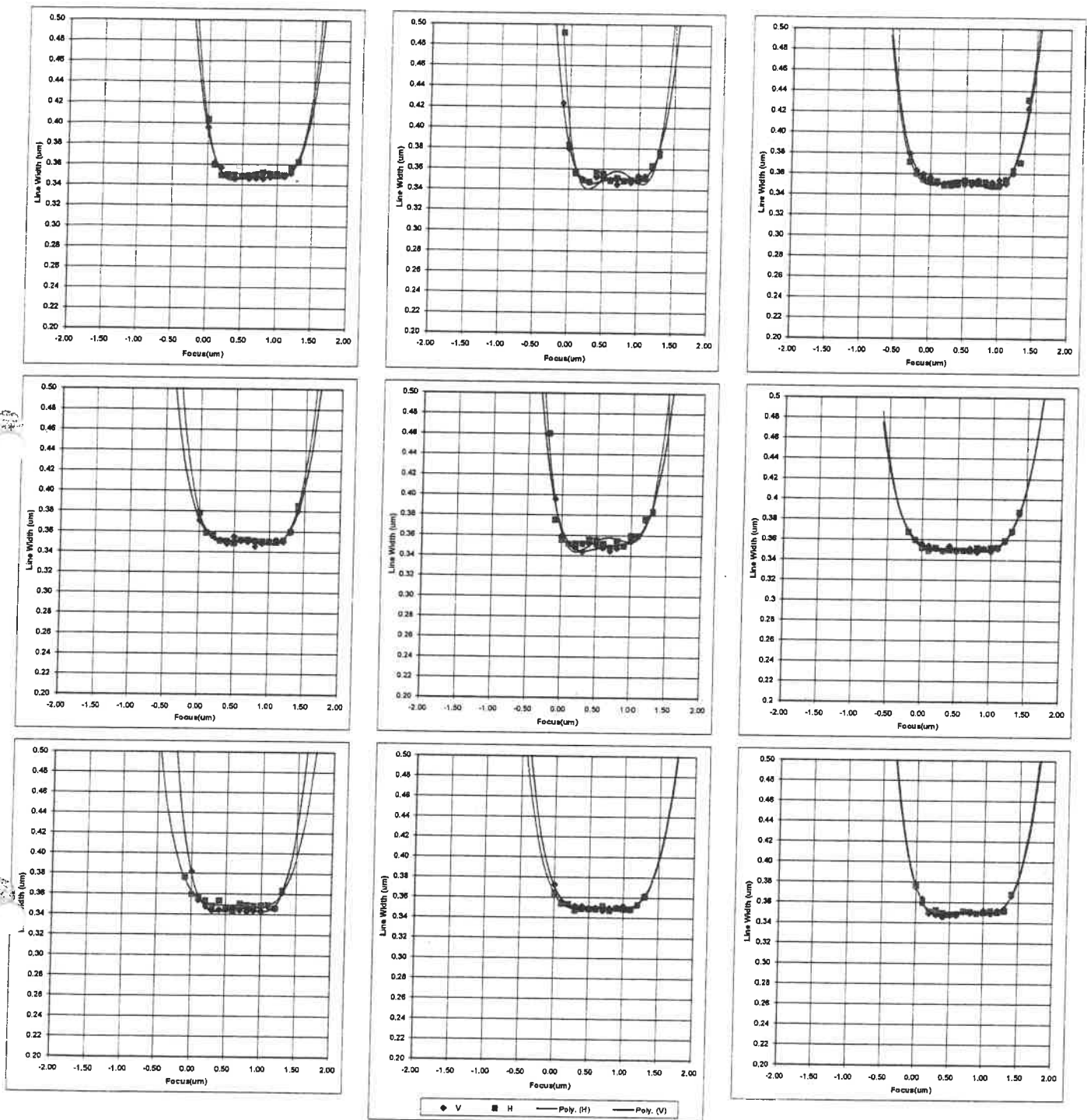
FPA-3000i5+

FPA-3000i5+

FPA-3000i5+

FPA-3000i5+

FPA-3000i5+

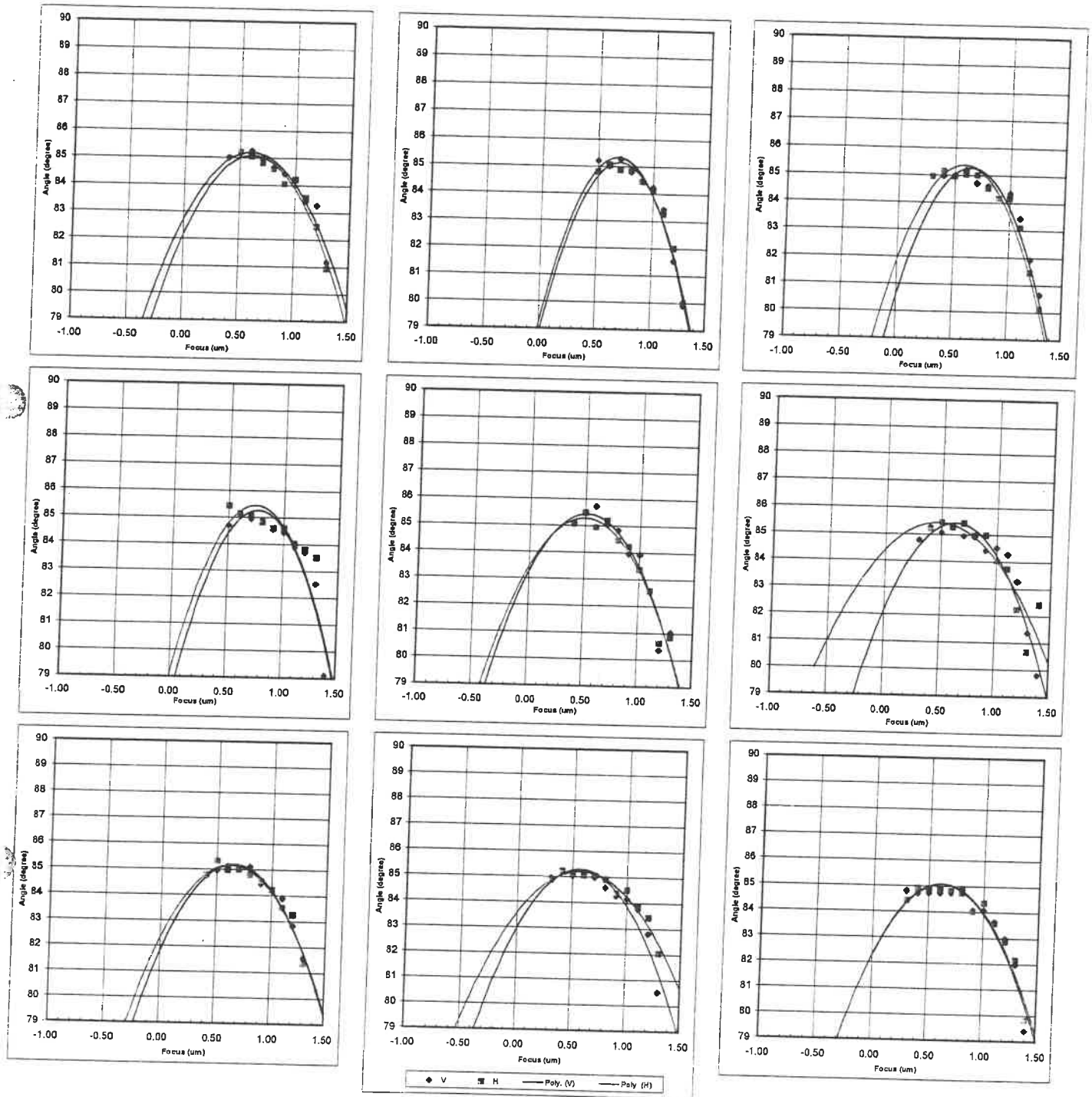


Ri	0.65 uml	Reticle	C700	Machine Type	3000i5+	NA	0.63	Illumination	Standard
Resist	OR	Exposure	2120 J/m2	Serial No.	707 2885	Sigma	0.65	Line width	0.35 um

Canon

CD Performance - 9 Fields

AMI 707 2885 i5+ (Stepper 12)

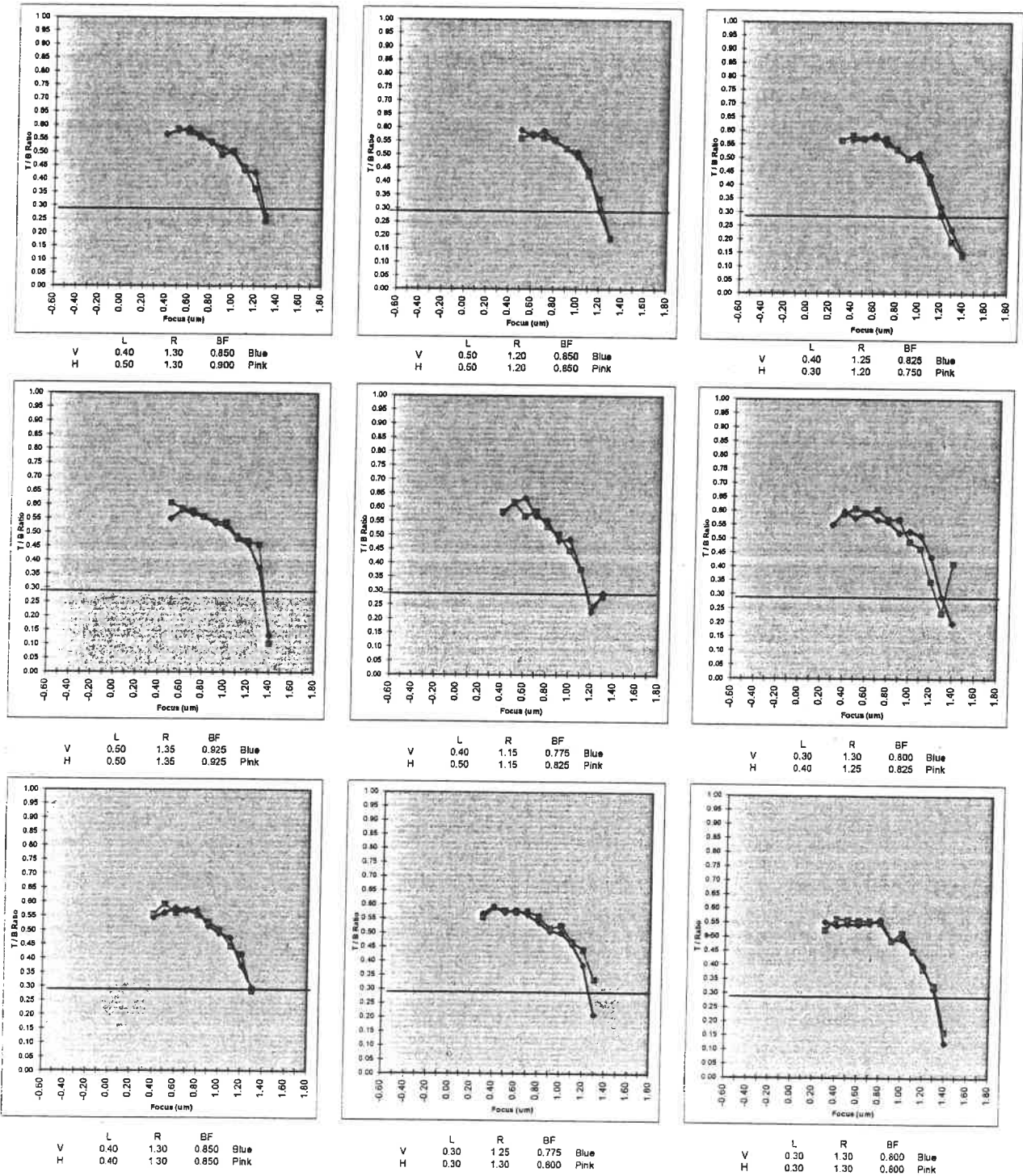


Rt	0.86 umt	Reticle	C700	Machine Type	3000i5+	NA	0.63	Illumination	Standard
Resist	01R	Exposure	2120 μm^2	Serial No.	707 2885	Sigma	0.65	Line width	0.35 um

Canon

Profile Performance - 9 Fields

AMI 707 2885 i5+ (Stepper 12)



Rt	0.88	umk	Reticle	C700	Machine Type	3000i5+	NA	0.63	Illumination	Standard
Resist	OIR		Exposure	2120	µm²	707 2885	Sigma	0.65	Line width	0.35 um

Canon

Image Surface Width - 9 Fields

(T / B vs Focus)

AMI 707 2885 i5+ (Stepper 12)

Canon**Lens Performance Data****AMI 707 2885 i5+ (Stepper 12)**

Rt	0.86	umt	Reticle	C700	Machine Type	3000i5+	NA	0.63	Illumination	Standard
Resist	OIR		Exposure	2120	Serial No.	707 2885	Sigma	0.85	Line width	## um

From SEM measurement data :

Best Focus

Vertical	0.850	0.850	0.825
	0.925	0.775	0.800
	0.850	0.775	0.800

Horizontal

	0.900	0.850	0.750
	0.925	0.825	0.825
	0.850	0.800	0.800

	-10	0	10	Ave Y
10	0.875	0.850	0.788	0.838
0	0.925	0.800	0.813	0.846
-10	0.850	0.788	0.800	0.813
Ave X	0.883	0.813	0.800	

	X	Y
-10	0.883	0.813
0	0.813	0.846
10	0.800	0.838
Tilt V	4.17	-1.25 ppm
		4.35 ppm

HV Diff

	-0.050	0.000	0.075
	0.000	-0.050	-0.025
	0.000	-0.025	0.000
			0.075 um

Focus

Centre	0.800	um
Average	0.832	um

Compensation Amount for Tilt

	-10	0	10
10	-0.054	-0.013	0.029
0	-0.042	0.000	0.042
-10	-0.029	0.013	0.054

After compensation

	0.821	0.838	0.817	0.825
	0.883	0.800	0.854	
	0.821	0.800	0.854	0.825
	0.842		0.842	

4 corners focus only

0.821	0.817
0.821	0.854

Field Curvature - Tilt comp.

0.08 um

Field Curvature - Tilt Incl.

0.14 um

4 Corner Range

0.04 um

Image Surface Width

-0.05 um

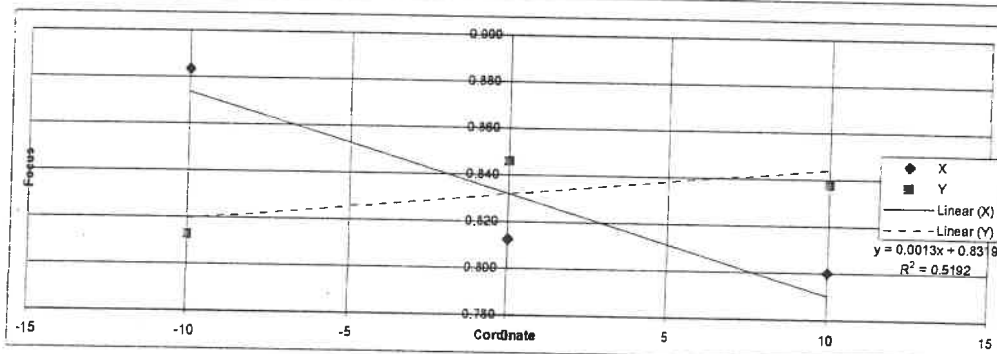
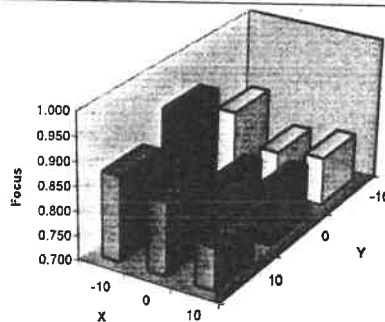
(Centre - Max of 4 corners)

4 Corner Mean
minus Centre

0.03 um

Astigmatism

0.08 um





CD Uniformity

AMI 707 2885 i5+ (Stepper 12)

(Linewidth Repeatability within a Field)

Focus	V	Angle	H	Angle
0.1	0.3462	85.3	0.3496	85.0
BF	0.3466	85.0	0.3491	84.8
-0.1	0.3461	84.6	0.3525	84.6
Average	0.3463	85.0	0.3504	84.8

Focus	V	Angle	H	Angle
0.1	0.3495	85.0	0.3489	85.1
BF	0.3450	85.3	0.3516	84.9
-0.1	0.3484	84.8	0.3487	84.8
Average	0.3476	85.0	0.3497	84.9

Focus	V	Angle	H	Angle
0.1	0.3494	85.2	0.3516	85.0
BF	0.3536	84.7	0.3507	85.0
-0.1	0.3492	84.6	0.3519	84.5
Average	0.3507	84.8	0.3514	84.9

Focus	V	Angle	H	Angle
0.1	0.3509	85.1	0.3520	85.2
BF	0.3501	84.9	0.3519	85.1
-0.1	0.3452	84.9	0.3511	84.8
Average	0.3487	85.0	0.3517	85.0

Focus	V	Angle	H	Angle
0.1	0.3477	85.7	0.3518	85.0
BF	0.3445	85.0	0.3481	85.2
-0.1	0.3473	84.8	0.3547	84.5
Average	0.3465	85.2	0.3515	84.9

Focus	V	Angle	H	Angle
0.1	0.3493	85.3	0.3495	85.3
BF	0.3513	85.0	0.3490	85.4
-0.1	0.3478	84.9	0.3520	85.0
Average	0.3495	85.1	0.3502	85.2

Focus	V	Angle	H	Angle
0.1	0.3467	85.1	0.3436	85.0
BF	0.3440	85.1	0.3505	85.0
-0.1	0.3432	85.1	0.3488	84.8
Average	0.3446	85.1	0.3476	84.9

Focus	V	Angle	H	Angle
0.1	0.3497	85.1	0.3483	85.0
BF	0.3472	85.0	0.3518	85.0
-0.1	0.3493	84.6	0.3468	84.9
Average	0.3487	84.9	0.3490	85.0

Focus	V	Angle	H	Angle
0.1	0.3471	84.7	0.3482	84.9
BF	0.3506	84.7	0.3511	84.8
-0.1	0.3495	84.9	0.3505	84.7
Average	0.3491	84.8	0.3499	84.8

BF used

0.70

um

Total Range (H&V, 9 points)

0.0096

um

Minimum Wall Angle

84.8

deg

Item: **MECHANICAL**
PRE-ALIGNMENT
ACCURACY

Date : 19-Jul-07
Engineer: Luhn / Wagner
Machine No. : 7072885
User ID: Stepper 12

```
=====xl=====
Sample count =          25
AVERAGE =             -74
3sigma   =           2110,4
=====xr=====
Sample count =          25
AVERAGE =          -1757
3sigma   =           2378,2
=====yl=====
Sample count =          25
AVERAGE =             -161
3sigma   =           3179,5
=====yr=====
Sample count =          25
AVERAGE =          5056,3
3sigma   =           3256,4
=====END=====
```

XL:	2,1	[um]
XR:	2,4	[um]
YL:	3,2	[um]
YR:	3,3	[um]

Canon FPA-3000 i5+

Item: TV PA ACCURACY

Installation Team

Date: 19-Jul-07

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

***** TvpaHelp V6.0 *****

torikomishotsuu: 100

Ave:	X	0,806	Y	-0,053
3sigma:	X	2,497	Y	0,194
Max:	Xmax	1,78	Ymax	0,215

Xmax + Crotmax 1,86 um

Ymax + Crotmax 0,295 um

Canon FPA-3000 i5+

Installation Team

Item: B/C SCOPE

Date: 24-Jul-07

TOC DIFFERENCE CHECK

Engineer: Luhn / Wagner

(C SCOPE)

Machine No.: 7072885

User ID: Stepper 12

1	-0,001	[um]
2	-0,001	[um]
3	0,000	[um]
4	-0,002	[um]
5	-0,012	[um]
6	-0,008	[um]
7	0,003	[um]
8	-0,011	[um]
9	-0,010	[um]
10	-0,002	[um]
11	0,002	[um]
12	0,004	[um]
13	-0,007	[um]
14	0,003	[um]
15	-0,002	[um]
16	0,000	[um]
17	0,000	[um]
18	-0,008	[um]
19	0,002	[um]
20	-0,006	[um]
21	-0,004	[um]
22	-0,003	[um]
23	0,001	[um]
24	-0,004	[um]
25	0,003	[um]

Average	-0,003	[um]
3sigma	0,014	[um]
Max	0,004	[um]
Min	-0,012	[um]
Range	0,016	[um]

|C5-C3|: -3 [nm]

Canon FPA-3000 i5+

Installation Team

Item: B/C SCOPE

Date: 24-Jul-07

**TOC DIFFERENCE CHECK
(B SCOPE)**

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

1	0,005	[um]
2	0,000	[um]
3	0,001	[um]
4	0,011	[um]
5	0,009	[um]
6	0,010	[um]
7	0,005	[um]
8	0,004	[um]
9	0,007	[um]
10	0,005	[um]
11	0,003	[um]
12	0,002	[um]
13	0,007	[um]
14	0,005	[um]
15	0,006	[um]
16	0,005	[um]
17	0,001	[um]
18	0,006	[um]
19	0,002	[um]
20	0,000	[um]
21	0,003	[um]
22	0,003	[um]
23	0,005	[um]
24	0,007	[um]
25	0,002	[um]

Average	0,005	[um]
3sigma	0,009	[um]
Max	0,011	[um]
Min	0,000	[um]
Range	0,011	[um]

|C5-C3|: 5 [nm]

**Item: B/C SCOPE DEFOCUS
CHARACTERISTICS
(B SCOPE)**

Date: 20-Jul-07

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

MODE 1

<<< AA defocus characteristic >>>

N	K	XI	YI	Xr	Yr
Total Z = -3.00	-99999	-99999	59	19	
Total Z = 0.00	-99999	-99999	59	44	
Total Z = 3.00	-99999	-99999	59	69	
Total Ka	0	0	0	8	$Ka=(TOCz-TOCm)/3$
Total Kb	0	0	0	8	$Kb=(TOCp-TOCz)/3$
Total Kc	0	0	0	0	$Kc=(TOCm+TOCp-2TOCz)/6$

MODE 2

<<< AA defocus characteristic >>>

N	K	XI	YI	Xr	Yr
Total Z = -3.00	-99999	-99999	59	65	
Total Z = 0.00	-99999	-99999	59	78	
Total Z = 3.00	-99999	-99999	59	65	
Total Ka	0	0	0	4	$Ka=(TOCz-TOCm)/3$
Total Kb	0	0	0	-4	$Kb=(TOCp-TOCz)/3$
Total Kc	0	0	0	-4	$Kc=(TOCm+TOCp-2TOCz)/6$

MODE 3

<<< AA defocus characteristic >>>

N	K	XI	YI	Xr	Yr
Total Z = -3.00	-99999	-99999	59	26	
Total Z = 0.00	-99999	-99999	59	21	
Total Z = 3.00	-99999	-99999	59	11	
Total Ka	0	0	0	-1	$Ka=(TOCz-TOCm)/3$
Total Kb	0	0	0	-3	$Kb=(TOCp-TOCz)/3$
Total Kc	0	0	0	0	$Kc=(TOCm+TOCp-2TOCz)/6$

	MODE 1	MODE 2	MODE 3
Ka	8	4	-1
Kb	8	-4	-3
Kc	0	-4	0

Item: **B/C SCOPE DEFOCUS
CHARACTERISTICS
(C SCOPE)**

Date: 20-Jul-07

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

MODE 1

<<< AA defocus characteristic >>>

N	K	XI	YI	Xr	Yr
Total Z = -3.00	-99999	-99999	-35	-490	
Total Z = 0.00	-99999	-99999	-45	-490	
Total Z = 3.00	-99999	-99999	-38	-490	
Total Ka	0	0	-3	0	Ka=(TOCz-TOCm)/3
Total Kb	0	0	2	0	Kb=(TOCp-TOCz)/3
Total Kc	0	0	2	0	Kc=(TOCm+TOCp-2TOCz)/6

MODE 2

<<< AA defocus characteristic >>>

N	K	XI	YI	Xr	Yr
Total Z = -3.00	-99999	-99999	-114	-490	
Total Z = 0.00	-99999	-99999	-84	-490	
Total Z = 3.00	-99999	-99999	-34	-490	
Total Ka	0	0	9	0	Ka=(TOCz-TOCm)/3
Total Kb	0	0	16	0	Kb=(TOCp-TOCz)/3
Total Kc	0	0	3	0	Kc=(TOCm+TOCp-2TOCz)/6

MODE 3

<<< AA defocus characteristic >>>

N	K	XI	YI	Xr	Yr
Total Z = -3.00	-99999	-99999	-28	-490	
Total Z = 0.00	-99999	-99999	-23	-490	
Total Z = 3.00	-99999	-99999	-10	-490	
Total Ka	0	0	1	0	Ka=(TOCz-TOCm)/3
Total Kb	0	0	4	0	Kb=(TOCp-TOCz)/3
Total Kc	0	0	1	0	Kc=(TOCm+TOCp-2TOCz)/6

	MODE 1	MODE 2	MODE 3
Ka	-3	9	1
Kb	2	16	4
Kc	2	3	1

Item: **B SCOPE**

Date: 20-Jul-07

WAVE SYMMETRY

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

No.	Mark Position					
	1	2	3	4		
1	-1,01	-1,36	-1,66	-2,37	(-3317055.00,	-10917519.00)
2	-1,11	-1,74	-1,66	-2,35	(-3317055.00,	-10917494.00)
3	-1,30	-1,68	-1,80	-2,17	(-3317055.00,	-10917469.00)
4	-1,10	-1,77	-1,62	-2,23	(-3317055.00,	-10917444.00)
5	-1,23	-1,92	-1,95	-2,42	(-3317055.00,	-10917419.00)
6	-1,01	-1,85	-1,83	-2,07	(-3317055.00,	-10917394.00)
7	-1,29	-1,79	-1,74	-2,28	(-3317055.00,	-10917369.00)
8	-1,33	-1,89	-1,91	-2,37	(-3317055.00,	-10917344.00)
Av:	-1,17	-1,75	-1,77	-2,28		
3Sig:	0,37	0,49	0,34	0,33		

MWS Position 2 -1,75 %

MWS Position 3 -1,77 %

Item: **C SCOPE**

Date: 20-Jul-07

WAVE SYMMETRY

Engineer: Luhn / Wagner

Machine No.: 7072885

User ID: Stepper 12

No.	Mark Position					
	1	2	3	4		
1	2,09	1,69	1,55	0,92	(11083936.00	3483326.00)
2	1,87	1,61	1,71	0,93	(11083961.00	3483326.00)
3	2,00	1,81	1,56	1,14	(11083986.00	3483326.00)
4	2,09	1,95	1,46	0,97	(11084011.00	3483326.00)
5	2,22	1,83	1,62	1,23	(11084036.00	3483326.00)
6	1,92	1,87	1,59	1,29	(11084061.00	3483326.00)
7	2,19	1,64	1,66	1,04	(11084086.00	3483326.00)
8	2,19	1,93	1,82	0,81	(11084111.00	3483326.00)
Av:	2,07	1,79	1,62	1,04		
3Sig:	0,37	0,37	0,31	0,47		

MWS Position 2 1,79 %

MWS Position 3 1,62 %