

TECHNICAL SPEC FOR Stepper 14

System Model:

Canon FPA 2000 i1, SN : 104141 i1

Tool has been shut down by Litho tech.

Electricity, cooling water, Vacuum and CCA are closed.

Cables between Main unit and power box are still connected, locking kit and demounting for transport to be provided by buyer.

Wafer size: 6 inch

Wafer type: Jeida flat

Chuck type: ring chuck

Reticle changer type: I1 box 14 reticles, standard

Inline right or left: Left

Particle checker (PPC): NO

Touch panel type: Canon standard

Options: None

Reticle size: 5 inch

Reticle alignment: Reticle rotation repeatability ≤ 0.03 um

Wafer alignment: ≤ 0.15 um

Auto focus: ≤ 0.15 um

Auto feeder: Yes

Wafer tilt:

Wafer feeder: Yes

Track interface: Yes (stepper was used inline with track, track interface is track part)

Laser: HeNe

Lens data:

Stage and U-lens (current)

Intensity: 550 mW/cm²

Distortion: <= 0.07 um

Uniformity: 5.5 %

Used for 0.35micron line and space? No

Chuck maintenance tool: No

Reticle bar code reader: Yes

Cassette bar code reader: No

SW Version:

OS:

Vintage:2010

Missing/defective parts: none

VENTEX CORPORATION
CANON FPA-2000i1 STEPPER INSTALLATION CHECK RESULTS

Customer : ON Semi		Machine S/N : 104141i1		Date : 11/4/10			
Classification	Item		Results		Standard	Judge	
Exposure	Open Frame Check		Particle Free		To be particle-free		
Performance	Distortion (Including Magnification)		DX = -.039 DY = -.037		0 ± 0.08 μm		
Illuminator Performance	Image Surface Illumination Intensity (Mode 1)		937mw/cm2		≥ 600 mW / cm ²		
	Image Surface Illumination Uniformity (Mode 1)		.8%		≤ 1.2 %		
	Light Integrator Control Accuracy		.349%		Overall ≤ 1.2 %		
	Masking Blade Accuracy (Excluding gray zone)		Max. = 50		0 ± 100 μm		
Alignment Performance	ROC Measurement Stability		Max. = .004		3 σ ≤ 0.015 μm		
	Reticle Rotation Accuracy		-.003		0 ± 0.02 μm		
	Reticle Rotation Repeatability		.022		Range ≤ 0.03 μm		
	Defocus Characteristics	He-Ne TV (Mode 1)	Max. = 15		0 ± 20mrad		
		B-B TV (Mode 4)	Max. = -.4		0 ± 20mrad		
	TOC Measurement Stability	He-Ne TV (Mode 1)	Max. = .03		3 σ ≤ 0.04 μm		
		He-Ne TV (Mode 2)	Max. = .01		3 σ ≤ 0.04 μm		
		B-B TV (Mode 4)	Max. = .02		3 σ ≤ 0.04 μm		
		B-B TV (Mode 4)	Max. = .02		3 σ ≤ 0.04 μm		
	Baseline	He-Ne TV (Mode 1)	Max (Avg.) = -.01 Max (3σ) = .02		Avg. ≤ 0.05 μm 3σ ≤ 0.05 μm		
		He-Ne TV (Mode 2)	Max (Avg.) = -.01 Max (3σ) = .02		Avg. ≤ 0.05 μm 3σ ≤ 0.05 μm		
		B-B TV (Mode 4)	Max (Avg.) = -.01 Max (3σ) = .02		Avg. ≤ 0.05 μm 3σ ≤ 0.05 μm		
		B-B TV (Mode 4)	Max (Avg.) = -.01 Max (3σ) = .02		Avg. ≤ 0.05 μm 3σ ≤ 0.05 μm		
AGA Accuracy (Resist to Resist)	He-Ne TV (Mode 1)	X = .063 Y = .078		mean + 3σ ≤ 0.12 μm			
	B-B TV (Mode 4)	X = .078 Y = .115		mean + 3σ ≤ 0.12 μm			
	Auto Focus And Tilt Performance	Measurement Stability (Open drive)	Focus	.038		3 σ ≤ 0.12 μm	
			Tilt	X = 2.98 Y = 3.32		3 σ ≤ 10 ppm	
Drive Repeatability (Open drive)		Focus	.11		3 σ ≤ 0.15 μm		
		Tilt	X = 3.24 Y = 3.77		3 σ ≤ 15 ppm		
X-Y Stage Performance	Stepping Accuracy (Tilt Off)		X = .068 Y = .041		3 σ ≤ 0.07 μm		
	Stepping Repeatability (Tilt On)		X = .066 Y = .038		3 σ ≤ 0.07 μm		
	Orthogonality		.13		0 ± 1.0 ppm		
	Scaling		X = -.03 Y = -.01		0 ± 1.0 ppm		

Classification	Item		Results	Standard	Judge
Pre-alignment Performance	Mechanical Pre-alignment Accuracy	Average	X = -3.5 Y = -2.8	0 ±40 μm	
		3σ	X = 9.12 Y = 3.52 θ = 100	X,Y ≤ 40 μm θ ≤ 400 ppm	
	TV Pre-alignment Accuracy		X = 0.61 Y = 0.74	mean + 3σ ≤ 2.0 μm	
Throughput	He-Ne TV AGA (Mode 1) (Exposure 0.15 sec.) (D/DTilt Off)				
		(32s)	82 wfrs	≥67 wfs. /hr	
Reliability	Wafer Feeding System		Trouble Free	To be trouble-free	
	Reticle Loading System		Trouble Free	To be trouble-free	

Photos to Collect

- All 4 sides
- Loader
- Chuck
- Cameras
- Control panel
- Chamber
- Robot
- Inside all of the cabinets (PCB's)
- Electronic racks (inside the boards as well)
- All electronic in/outlets
- Serial plate
- Spare parts, manuals (if any)