TECHNICAL SPEC FOR Stepper

System Model:
Canon FPA 3000 i5 SN 7122157

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: 6 inch pin chuck

Reticle changer type: (Canon standard?)

Inline right or left: left

Particle checker (PPC): Yes

Touch panel type: Canon standard

Options:

Reticle size: 6 inch

Reticle alignment: see specs below

Wafer alignment: see specs below

Auto focus:see specs below

Auto feeder: Yes

Wafer tilt:

Wafer feeder: Yes

Track interface: Yes, tool was used inline, interface is track part

Laser: Hene

Lens data: see below

Stage and U-lens

Intensity: 650 mW/cm2

Uniformity: 3.5%

Stage vibration data:

Used for 0.35micron line and space? Y

Chuck maintenance tool: No

Reticle bar code reader: Yes

Cassette bar code reader: No

SW Version:

OS:

Vintage: 2011

Missing/defective parts: none

MODEL	FPA-3000 i5	INSTALLATION CHECK LIST	
SN	7122157		
CUSTOMER	ON Semi	STEPPER NAME	STEPPER 16

	DESCRIPTION		Results	UNIT	SPECIFICATION	
LENS DISTORTION	LENS DISTORTION (NA63σ65)	DX	0.034	µm	≤ ± 0.04	OK
		DY	0.029			
	LENS DISTORTION Special Mode 1	DX	0.041	µm	NA	NA
		DY	0.057			
	LENS DISTORTION Special Mode 2	DX	0.043	µm	NA	NA
		DY	0.064			
	LENS DISTORTION Special Mode 4	DX	0.024	µm	NA	NA
		DY	0.032			
EXPOSURE FOCUS STABILITY	SP1 NA0.52σ0.60	Initial	0.00	µm	Range < 0.3µm	OK
		Heated	-0.05			
		Cooled	0.05			
		Range	0.10			
	SP2 NA0.55σ0.50	Initial	0.00	µm	Range < 0.3mm	OK
		Heated	0.10			
		Cooled	0.15			
		Range	0.15			
	SP4 NA0.63σ0.70	Initial	0.05	µm	Range < 0.3µm	OK
		Heated	0.05			
		Cooled	0.00			
		Range	0.05			
EXPOSURE MAGNIFICATION STABILITY	SP1 NA0.52σ0.60	Initial	3.22	ppm	Range < 2.0 ppm	OK
		Heated	2.61			
		Cooled	3.52			
		Range	0.92			
	SP2 NA0.55σ0.50	Initial	3.32	ppm	Range < 2.0 ppm	OK
		Heated	3.25			
		Cooled	3.77			
		Range	0.51			
	SP4 NA0.63σ0.70	Initial	3.34	ppm	Range < 2.0 ppm	OK
		Heated	3.22			
		Cooled	2.77			
		Range	0.57			

ILLUMINATION SYSTEM	Standard/Normal Illumination	Uniformity	**1.6**	%	≤ 1.0	**NG**
		Intensity	**8235.0**	W/m²	≥ 9000	
	Special Illumination Mode 1	Uniformity	**1.7**	%	NA	**NG**
		Intensity	**11478**	W/m²	NA	
	Special Illumination Mode 2	Uniformity	**2.1**	%	NA	**NG**
		Intensity	**11908**	W/m²	NA	
	Special Illumination Mode 4	Uniformity	**1.3**	%	NA	**NG**
		Intensity	**10890**	W/m²	NA	
	L.I. ACCURACY		**0.45**	%	≤ 1.0	OK
	MASKING BLADE ACCURACY	θ	**-113.6**	ppm	≤ 3000	OK
		GZW	**20**	µm	≤ 60	
		Total	**32.5**	µm	≤ ± 110	
FOCUS TILT SYSTEM	FOCUS - TILT STABILITY	F(3σ)	**0.038**	µm	3σ ≤ 0.08	OK
		X(3σ)	**2.909**	ppm	3σ ≤ 6	
		Y(3σ)	**2.754**			
	FOCUS - TILT REPEATABILITY	F(3σ)	**0.08**	µm	3σ ≤ 0.10	OK
		X(3σ)	**2.7**	ppm	3σ ≤ 7	
		Y(3σ)	**3.8**			
	GLOBAL - TILT MEASUREMENT REPEATABILITY	X(3σ)	**0.6**	ppm	3σ ≤ 4	OK
		Y(3σ)	**0.7**			
	GLOBAL - TILT ACCURACY	X(3σ)	**1.8**	ppm	3σ ≤ 8	OK
		Y(3σ)	**1.0**			
	TILT SENSOR UNEVEN FOCUS (DxD ON)	V	**0.0**	ppm	≤ ± 4	OK
	UNEVEN FOCUS (TSOC) (DxD OFF)	V	**1.5**	ppm	≤ ± 6	OK
	ALFC MEASUREMENT REPEATABILITY	3σ	**0.03**	µm	3σ ≤ 0.10	OK
TVPA	TV PRE-ALIGNMENT ACCURACY (DARK FIELD)	X	**1.94**	µm	≤ 3.0	OK
		Y	**2.55**			

WAFER STAGE	XYSA	Ortho	**-0.05**	ppm	≤ ± .5	OK
		Scal X	**0.01**			
		Scal Y	**-0.03**			
	STEPPING ACCURACY WAFER 1	XX (3σ)	**0.011**	µm	3σ ≤ 0.040	OK
		XY (3σ)	**0.011**			
		YX (3σ)	**0.011**			
		YY(3σ)	**0.014**			
	STEPPING ACCURACY WAFER 2	XX (3σ)	**0.010**	µm	3σ ≤ 0.040	OK
		XY (3σ)	**0.009**			
		YX (3σ)	**0.015**			
		YY(3σ)	**0.015**			
	STEPPING ACCURACY WAFER 3	XX (3σ)	**0.011**	µm	3σ ≤ 0.040	OK
		XY (3σ)	**0.009**			
		YX (3σ)	**0.014**			
		YY(3σ)	**0.011**			
	STEPPING REPEATABILITY	X(3σ)	**0.023**	µm	3σ ≤ 0.035	OK
		Y(3σ)	**0.013**			
SRC	SRC MEASUREMENT REPEATABILITY	3σ	**0.30**	ppm	3σ ≤ 0.5	OK
RETICLE ALIGNMENT	ROC MEASUREMENT REPEATABILITY	XL(3σ)	**0.004**	µm	3σ ≤ 0.01	OK
		YL(3σ)	**0.002**			
		XR(3σ)	**0.005**			
		YR(3σ)	**0.002**			
	RETICLE ROTATION ACCUARACY		**-0.003**	µm	≤ ± 0.01	OK
	RETICLE ROTATION REPEATABILITY		**0.001**	µm	≤ ± 0.02	OK
BASELINE	BLC STABILITY (MODE 1)	X(3σ)	**0.005**	µm	3σ ≤ 0.030	OK
		Y(3σ)	**0.008**			
		RNG(X)	**0.007**	µm	Range ≤ 0.03	OK
		RNG (Y)	**0.012**			
	BLC STABILITY (MODE 2)	X(3σ)	**0.005**	µm	3σ ≤ 0.030	OK
		Y(3σ)	**0.004**			
		RNG(X)	**0.006**	µm	Range ≤ 0.03	OK
		RNG (Y)	**0.006**			
	BLC STABILITY (MODE 4)	X(3σ)	**0.007**	µm	3σ ≤ 0.031	OK
		Y(3σ)	**0.006**			
		RNG(X)	**0.009**	µm	Range ≤ 0.03	OK
		RNG (Y)	**0.008**			

AUTO ALIGNMENT	AGA ACCURACY MODE 1 (|m| + 3σ)	X	**0.023**	µm	|mean| + 3σ < 0.05	OK
		Y	**0.026**			
	AGA ACCURACY MODE 2 (|m| + 3σ)	X	**0.035**	µm	|mean| + 3σ < 0.05	OK
		Y	**0.027**			
	AGA ACCURACY MODE 4 (|m| + 3σ)	X	**0.024**	µm	|mean| + 3σ < 0.05	OK
		Y	**0.031**			
		XL	**5.796**	µm	3σ ≤ 40	OK
		XR	**6.016**			
		YL	**8.58**			
		YR	**7.315**			
TPD	THROUGHPUT 6" WAFER TYPE-L WF	DxD ON	**128.5**	WPH	>120	OK
		DxD OFF	**130.1**		>120	OK
	WAFER CHUCK FLATNESS	▫ 22mm	**0.44**	µm		