## **TECHNICAL SPEC FOR Stepper 15**

System Model: Canon FPA 2000 i1, SN : 406352i1

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: pin 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: 500 mW/cm2 Distortion: <= 0.07 um Uniformity: 2 %

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:2011

Missing/defective parts: none

Tool acceptance data:



## CANON STEPPER FPA2000il INSTALLATION CHECK

| CUSTOMER : On Semi |                                  | SYSTEM I | SYSTEM ID : Stepper 15 |      |    | S / N : 406352i1            |   |  |
|--------------------|----------------------------------|----------|------------------------|------|----|-----------------------------|---|--|
| RETICLE # :        |                                  | WAFER #  | WAFER # :              |      |    | DATE : February 2011        |   |  |
| -                  |                                  |          |                        | -    |    |                             |   |  |
| NO                 | CHECK ITEM                       |          | INITIAL                | FIN  | AL | SPEC.                       | 1 |  |
|                    |                                  | XL       | 4                      |      |    |                             |   |  |
| 1                  | PRESS ROLLER TENSION             | XR       | 4                      |      |    | $4 \pm 0.5 \; \mathrm{Kgf}$ |   |  |
|                    |                                  | YF       | 4                      |      |    |                             |   |  |
|                    |                                  | YB       | 4                      |      |    |                             |   |  |
| 2                  | X-Y STAGE LASER POWER : ( HP )   |          | 458                    |      |    | $\geq~200~\mu{\rm W}$       |   |  |
|                    | (ZYGO)                           |          |                        |      |    | $\geq 300 \; \mu {\rm W}$   |   |  |
|                    | X-Y STAGE : ( OFFSET ) PST - COM | х        | 0.5                    | 0    |    | $0 \pm 1 \; \mathrm{mV}$    |   |  |
|                    |                                  | Y        | -0.3                   | 0    |    |                             |   |  |
|                    | ( OFFSET ) XP - XM               | х        | 120                    | 0    |    | $0 \pm 10 \text{ mV}$       |   |  |
| 3                  | YP - YM                          | Y        | 60                     | 0    |    |                             |   |  |
|                    | ( SPEED ) VAJ - COM              | х        | 1.985                  | 1.98 | 80 | $1.975 \pm 0.02$ KHz        |   |  |
|                    |                                  | Y        | 1.985                  | 1.9  | 75 |                             |   |  |
|                    | (HIGH GAIN) DA - COM             | х        | 1-1                    |      |    | 1⁄2 ~ 1 Cycle               |   |  |
|                    |                                  | Y        | 1-1                    |      |    |                             |   |  |
|                    | (LOW GAIN) DA - COM              | х        | 1 ½ -1 ½               |      |    | 2 ± 1 Cycle                 |   |  |
|                    |                                  | Y        | 1 ½ - 2 ½              |      |    |                             |   |  |
| 4                  | A/F : ( P/A) CCD                 | х        | 0.8                    |      |    | $0.8\pm0.2~\mathrm{V}$      |   |  |
|                    |                                  | L        | 0.8                    |      |    |                             |   |  |
|                    |                                  | R        | 1.0                    | 0.8  | 8  |                             |   |  |

| NO | CHECK ITEM                                | -   | INITIAL | FINAL   | SPEC.                               | 1 |
|----|---|-----|---------|---------|-------------------------------------|---|
|    |   | Z0  | 97      | 95.1    |                                     |   |
| 7  | EDDY CURRENT SENSOR VOLTAGE               | Z1  | 91.7    | 95.0    | $95 \pm 3 \text{ mV}$               |   |
|    |   | Z2  | 92.4    | 94.9    |                                     |   |
|    |   | Z3  | 95.3    | 95.0    |                                     |   |
| 8  | UNIFORMITY                                |     | 1.8     | 1.6     | ≤1.2 %                              |   |
| 9  | INTENSITY                                 |     | 723     | 718     | $\geq 600 \text{ mW} / \text{cm}^2$ |   |
| 10 | LIRC ACCURACY (OVERALL)                   |     | 0.294   |         | ≤1.2 %                              |   |
|    |   | XL  | 0.004   |         |                                     |   |
| 11 | FRA MEASUREMENT STABILITY ( $3 \sigma$ )  | YL  | 0.002   |         | ≤ 0.01 µm                           |   |
|    | (1/1000 <sup>th</sup> mode)               | XR  | 0.004   |         |                                     |   |
|    |   | YR  | 0.002   |         |                                     |   |
| 12 | Z-DRIVE (PIEZO) GAIN                      | Z0  | 1.0104  | 00.9970 | $1.00 \pm 0.01$                     |   |
|    |   | CHI | 1.000   |         |                                     |   |
|    |   | CH2 | 1.000   |         |                                     |   |
| 13 | 5-CHANNEL OPAF GAIN                       | СНЗ | 1.002   |         | $1.00 \pm 0.01$                     |   |
|    |   | CH4 | 1.006   |         |                                     |   |
|    |   | CH5 | 1.003   |         |                                     |   |
|    |   | Z1  | 1.0007  |         |                                     |   |
| 14 | TILT-DRIVE (PIEZO) GAIN                   | Z2  | 1.0003  |         | $1.00 \pm 0.01$                     |   |
|    |   | Z3  | 1.0013  |         |                                     |   |
| 15 | GTOC STABILITY (3 o)                      | х   | 3.1     |         | ≤5 ppm                              |   |
|    |   | Y   | 2.6     |         |                                     |   |
| 16 | GTOC REPEATABILITY $(3 \sigma)$           | х   | 1.7     |         | ≤ 10 ppm                            |   |
|    |   | Y   | 2.7     |         |                                     |   |
|    |   | F   | 0.055   |         | ≤ 0.12 μm                           |   |
| 17 | FOCUS & TILT STABILITY (3 )               | х   | 2.240   |         | ≤ 10 ppm                            |   |
|    |   | Y   | 3.01    |         |                                     |   |
|    |   | F   | 0.07    |         | ≤ 0.15 μm                           |   |
| 18 | FOCUS & TILT REPEATABILITY ( 3 $\sigma$ ) | х   | 3.67    |         | ≤ 15 ppm                            |   |
|    |   | Y   | 3.80    |         |                                     |   |

## **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)