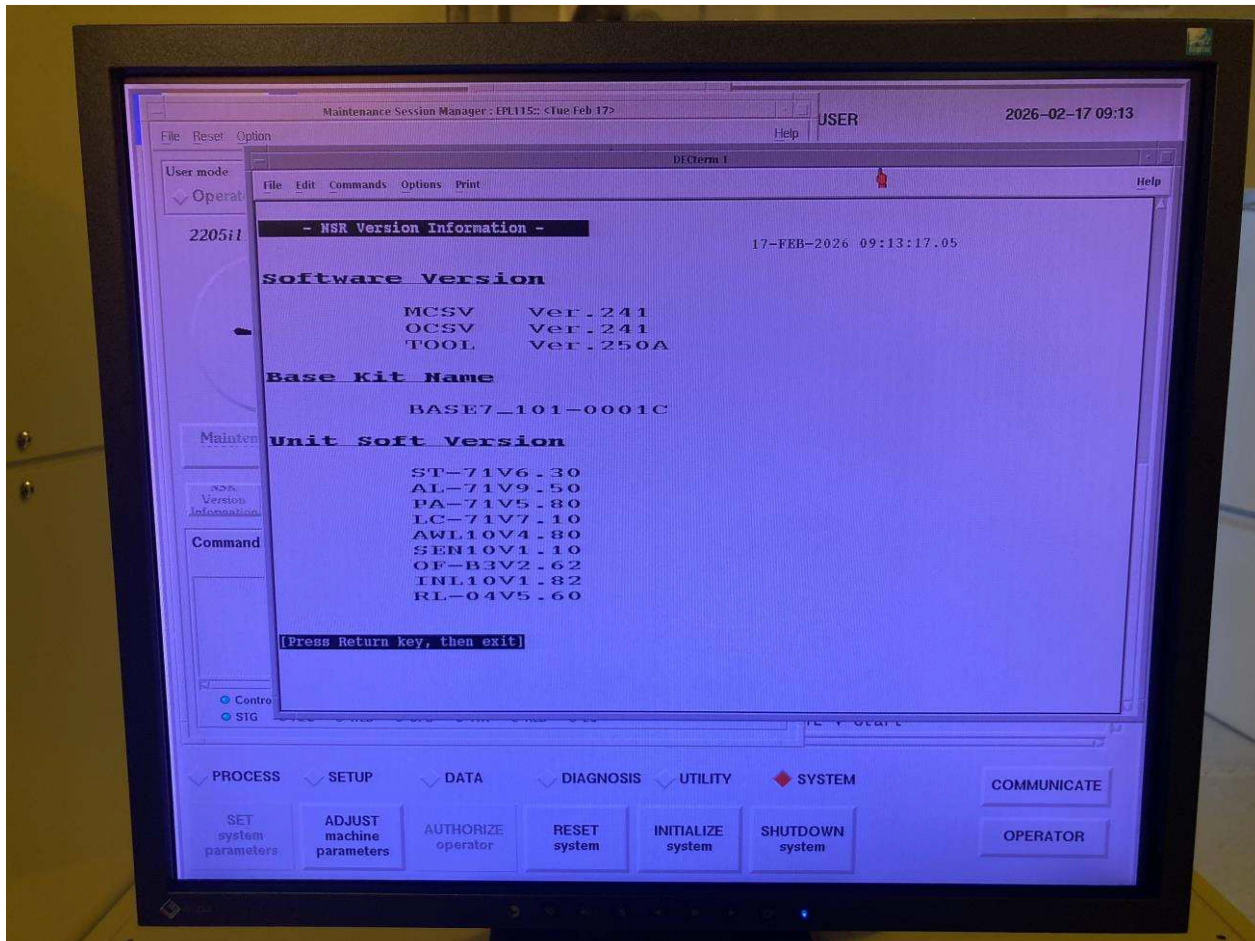


## 2205i11D

No	ITEM	SPEC	RESULT
1	Total Focus Deviation	Max-Min $\leq 0.20\mu\text{m}$	0.290 $\mu\text{m}$
2	Lens Astigmatism	$ V-H  \leq 0.30\mu\text{m}$	0.233 $\mu\text{m}$
3	Lens Dynamic Distortion	X,Y = Within $\pm 50\text{nm}$	Not Available
4	Wafer Flatness Accuracy	1) Flat Within $\geq$ Max-Min 3.0 $\mu\text{m}$ 2) L.F.S Within $\geq$ Max-Min 0.8 $\mu\text{m}$	1. 0.89 $\mu\text{m}$ 2. 0.42 $\mu\text{m}$
5	Exposure Power	Within $\geq 650\text{mW}/\text{cm}^2$	537 $\text{mW}/\text{cm}^2$
6	Illumination Uniformity	Within $\pm 1.5\%$	1.01%
7	Stage Precision Accuracy 1) Stepping Accuracy 2) Backlash Accuracy	1) $3\sigma \leq 50\text{nm}$ 2) $3\sigma \leq 50\text{nm}$	1) X: 14nm Y: 16nm 2) Not Available
8	Wafer Pre-Alignment Repeatability	$3\sigma \leq 15\mu\text{m}$	X : 4.580 $\mu\text{m}$ Y : 21.51 $\mu\text{m}$ T : 7.214 $\mu\text{m}$
9	Integrator Accuracy	Target: Ave $\leq 1\%$	Ave Max = 0.025%
10	Alignment Accuracy 1) FIA-EGA 2) LSA-EGA	FIA-EGA = $ M  + 3\sigma \leq 75\text{nm}$ LSA-EGA = $ M  + 3\sigma \leq 75\text{nm}$	1) X = $\pm 36\text{nm}$ Y = $\pm 25\text{nm}$ 2) X = $\pm 21\text{nm}$ Y = $\pm 22\text{nm}$

# Software

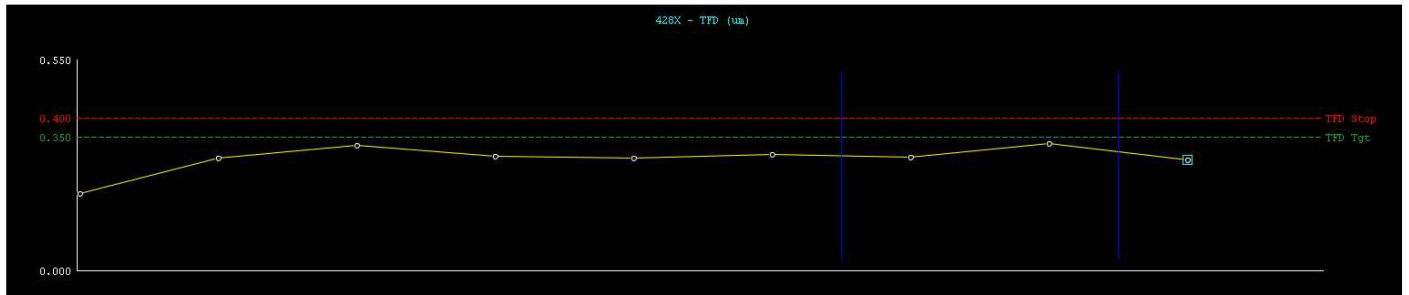


**1. Total Focus Deviation:**

(0.25 $\mu$ m L&S / 15Point V/H)

SPEC: Max-Min $\leq$ 0.20 $\mu$ m

Result: Max – Min = 0.290 $\mu$ m

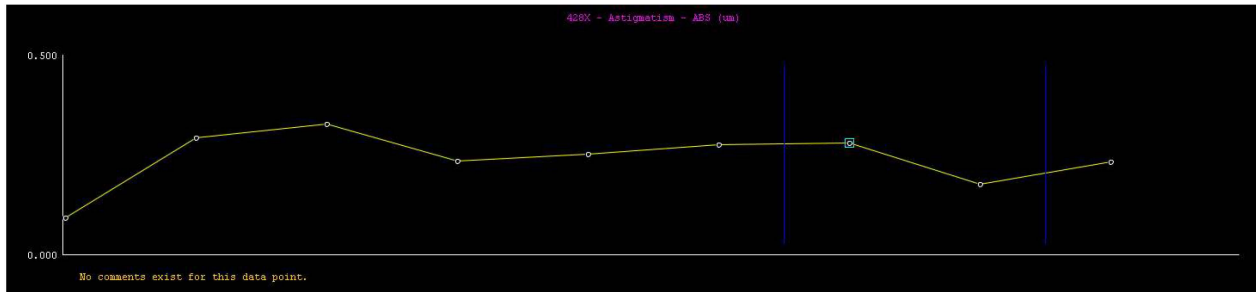


## 2. Lens Astigmatism :

(0.25 $\mu$ m L&S / 15Point V/H)

SPEC:  $|V-H| \leq 0.20\mu\text{m}$

Result:  $|V-H| = 0.233\mu\text{m}$



### **3. Lens Dynamic Distortion :**

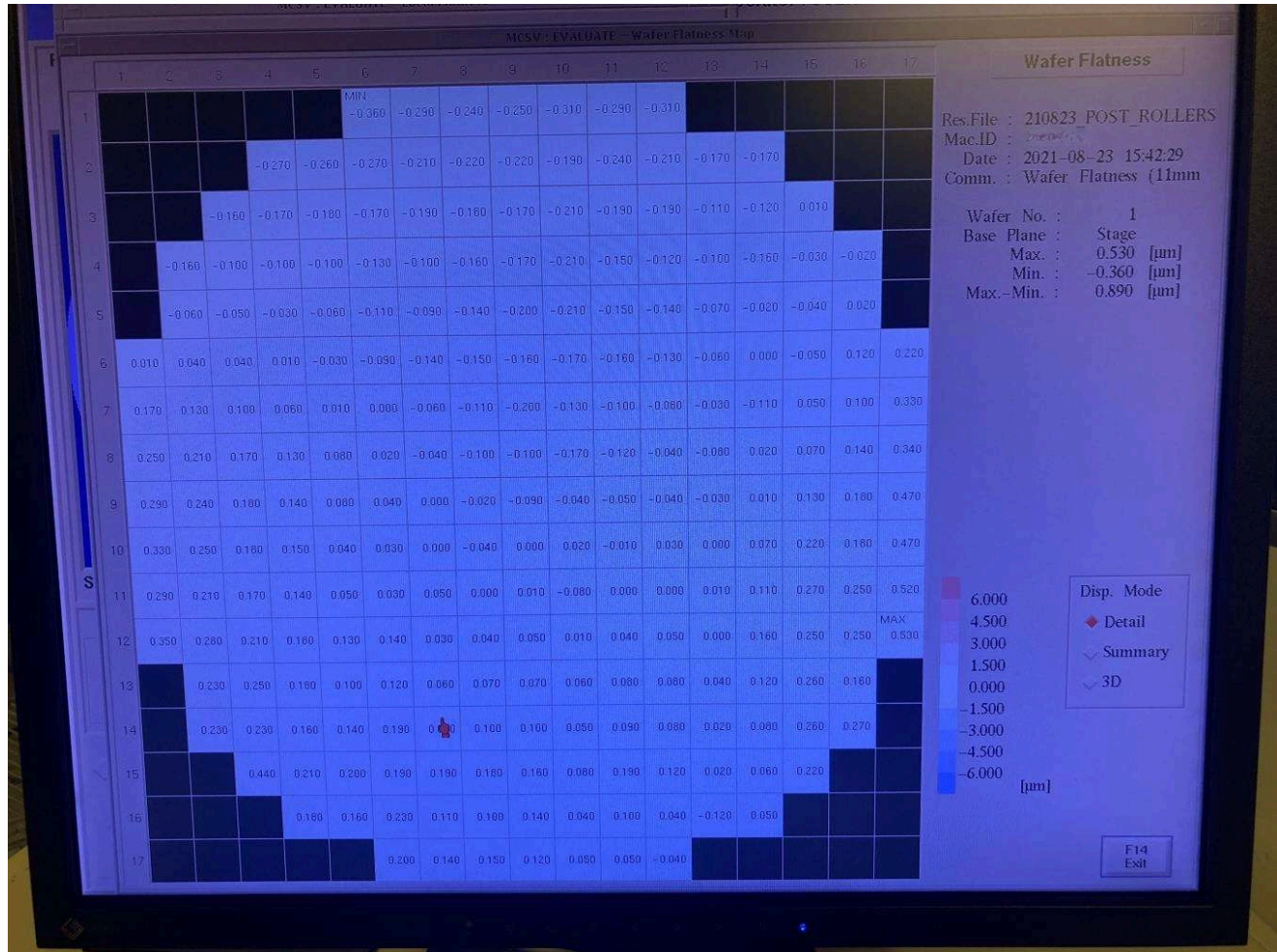
SPEC: X,Y = Within  $\pm 50\text{nm}$

Result: Result not available, Measurement file purged

#### 4. Wafer Flatness Accuracy :

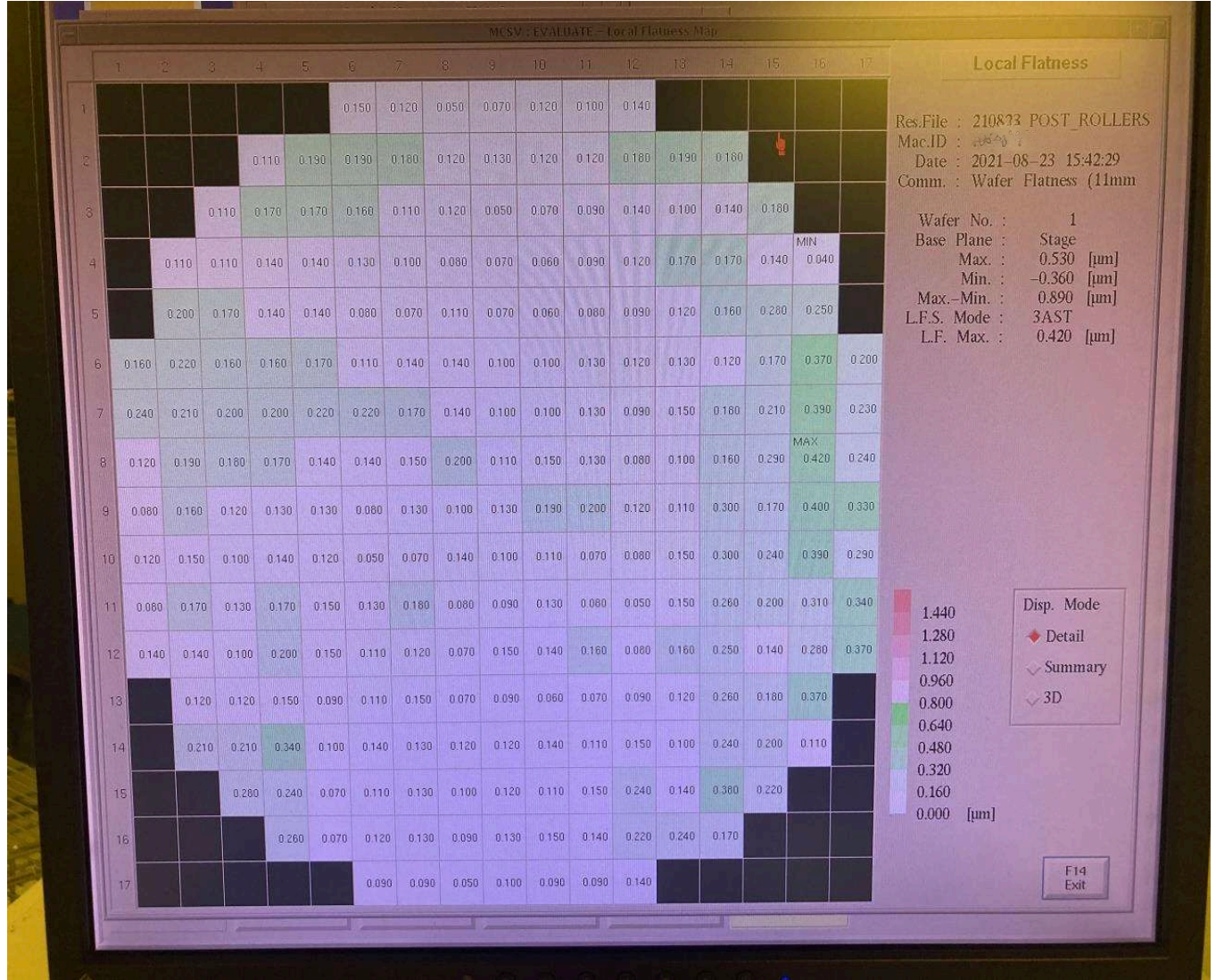
SPEC: 1) Flat Within  $\geq$  Max-Min  $3.0\mu\text{m}$

Result: Max-Min =  $0.89\mu\text{m}$



SPEC: 2) L.F.S Within  $\geq$  Max-Min  $0.8\mu\text{m}$

Result: Max-Min = 0.42μm



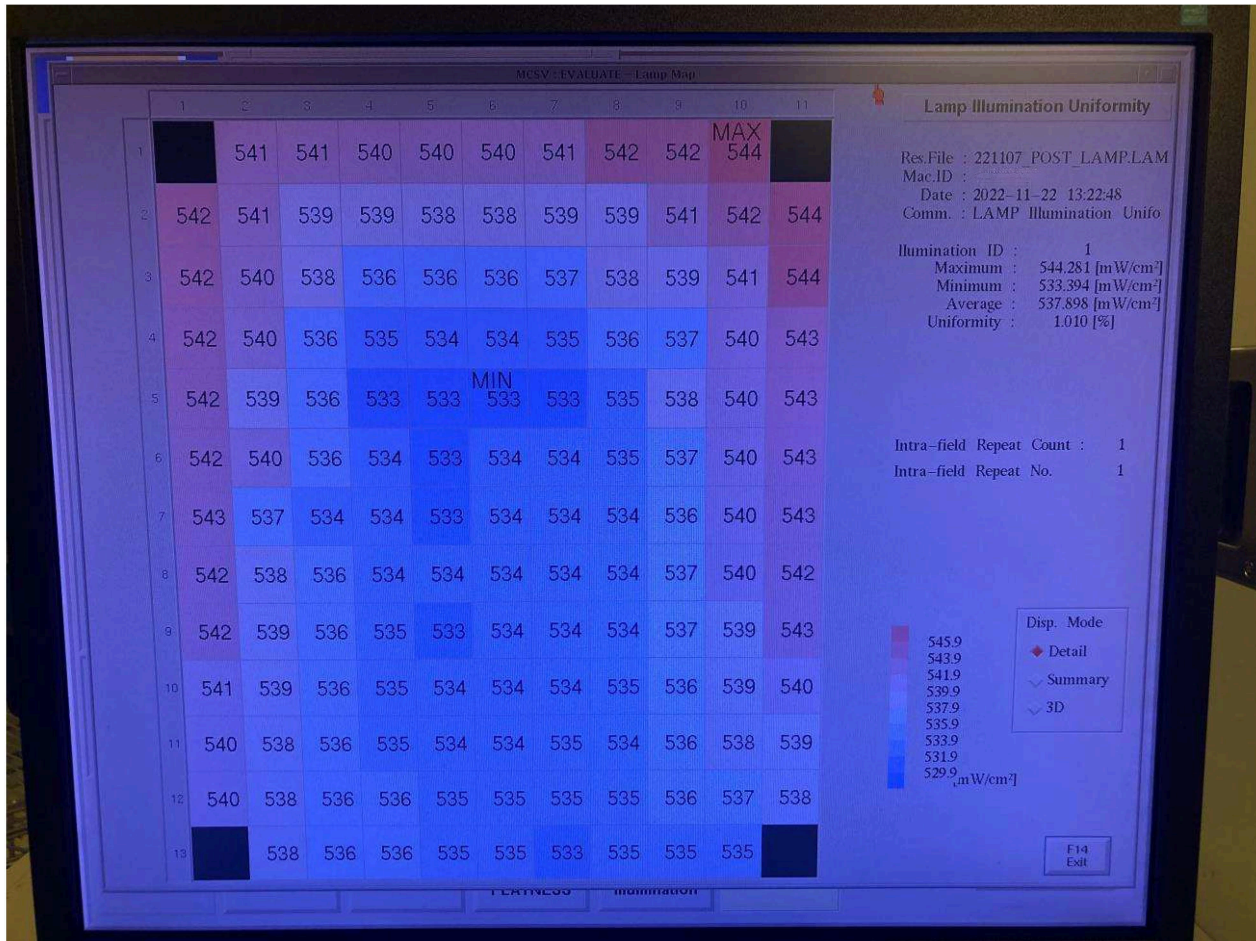
**5/6 Exposure Power / Uniformity :**

SPEC: Power = Within  $\geq 650\text{mW/cm}^2$

Spec: Uniformity Within  $\pm 1.5\%$

Result: 1) Illumination Power =  $537\text{mW/cm}^2$

2) Uniformity = 1.01%



## 7. Stage Precision Accuracy :

SPEC: Step X,Y  $3\sigma \leq 50\text{nm}$

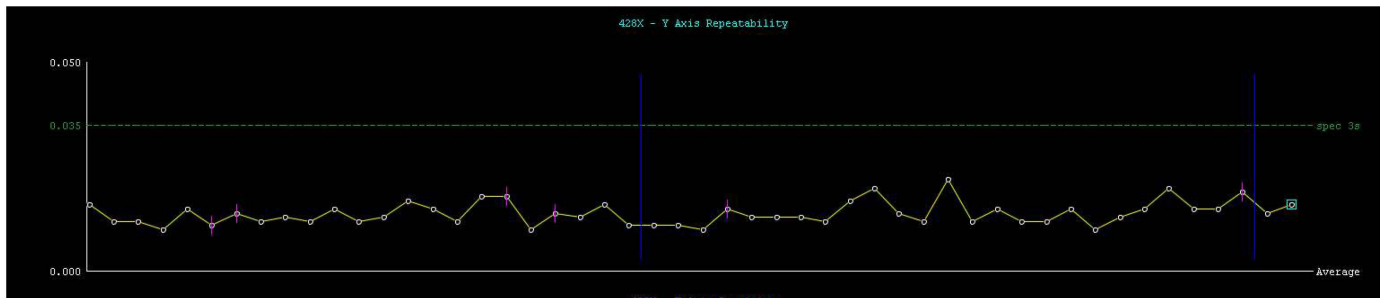
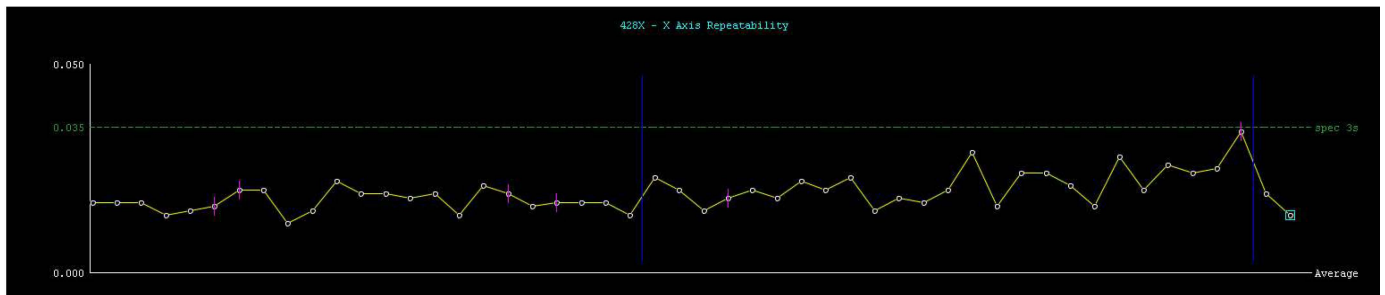
Backlash X,Y  $3\sigma \leq 50\text{nm}$

Result:

### 1) Stepping Accuracy

X( $3\sigma$ ) : 14nm

Y( $3\sigma$ ) : 16nm



### 2) Backlash Accuracy

Not available Measurement file purged

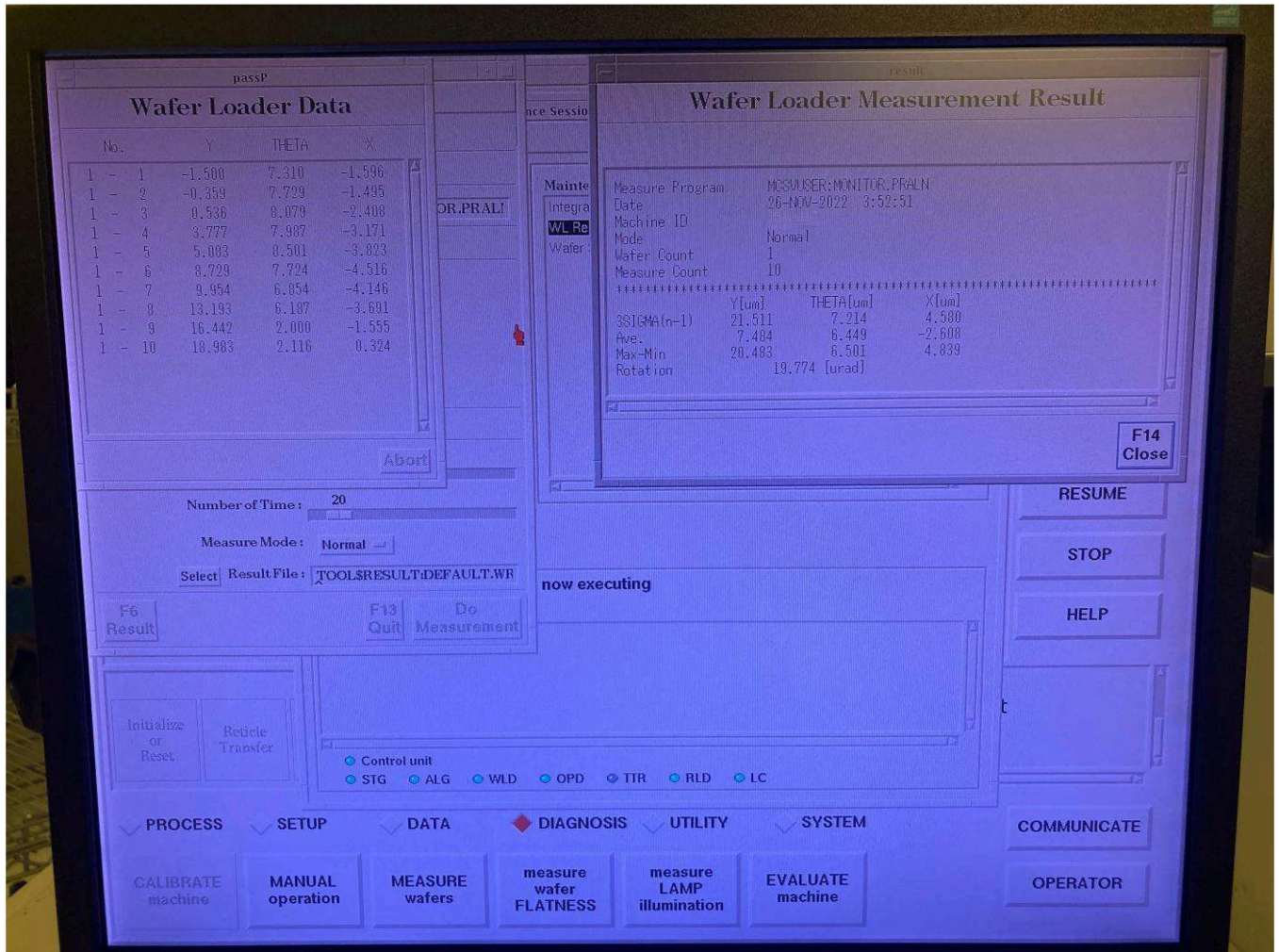
### 8. Wafer Pre-Alignment Repeatability :

SPEC:  $3\sigma \leq 15\mu\text{m}$

Result:  $X(3\sigma) = 4.580\mu\text{m}$

$Y(3\sigma) = 21.51\mu\text{m}$

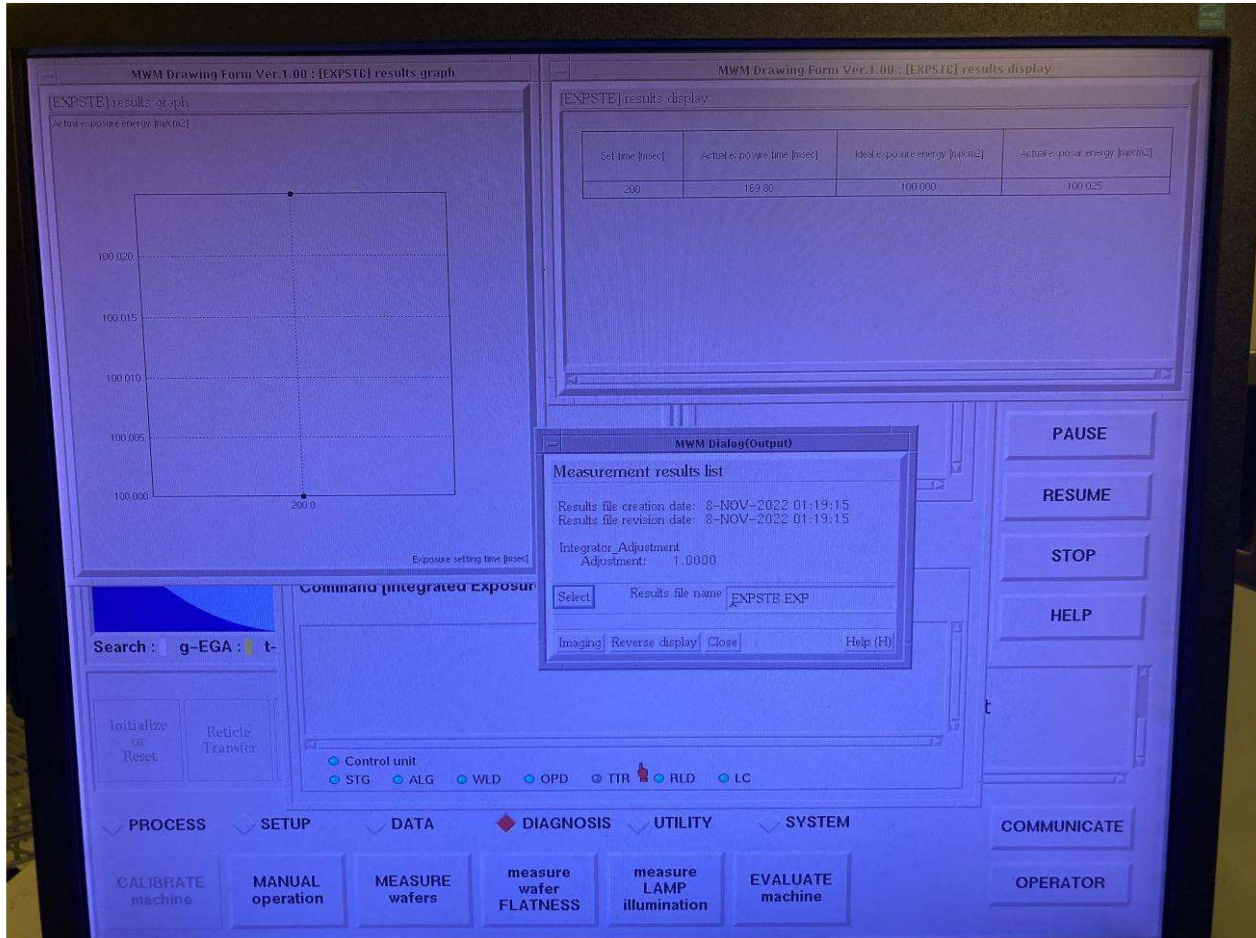
$T(3\sigma) = 7.214\mu\text{m}$



### 9. Integrator Accuracy :

SPEC: Ave  $\leq$  1.0%

Result: Max = 0.025%

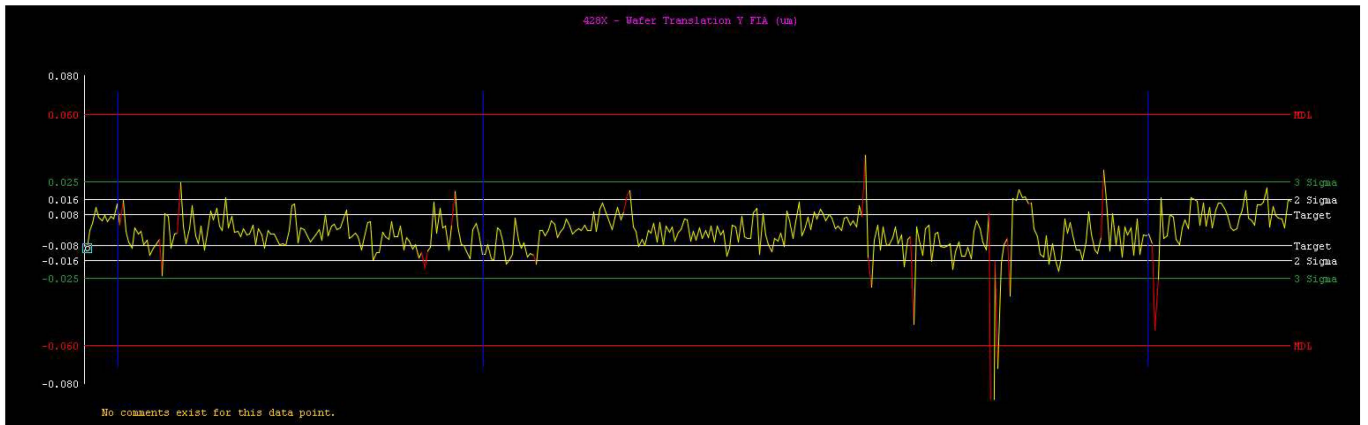
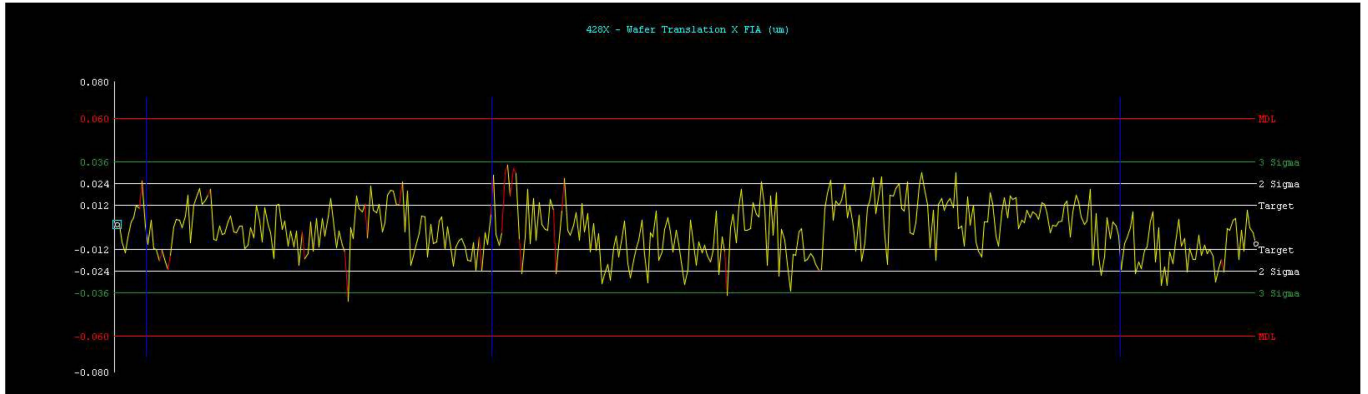


**10-1 FIA :**

SPEC: FIA-EGA =  $|M| + 3\sigma \leq 70\text{nm}$

Result: FIA-EGA X = 36nm

FIA-EGA Y = 25nm



**10-2 LSA :**

SPEC: LSA-EGA =  $|M| + 3\sigma \leq 70\text{nm}$

Result: LSA-EGA X = 21nm

LSA-EGA Y = 22nm

