ASML 2500/40 ACCEPTANCE TEST SPECIFICATIONS

Customer:	EO Technical
Site:	Vancouver, Wa
Machine serial number:	765
Model:	*2500/40*
Wafer size:	6"
Purchase order no:	
Software Release:	8.1.0
Test completion date:	*See notes in side-bar*

Parameter	Specification (absolute values)	FAT		SAT	
		Measured	**Accept**	Measured	Accept
1. Illumination					
1.1 Illumination Homogeniety					
15.0 x 15.0 mm [%]	≤ 3.0	2.86	7/28/2022		
9.4 x 19.0 mm [%]	≤ 3.0	2.43	7/28/2022		
Illumination intensity [mW/cm2]	>280	324	7/28/2022		
2. Reticle masking					
2.1 Reticle masking [µm]	≤ 500	200	7/29/2022		
3. Lens distortion					
3.1 Non-correctable error [nm]					
X @15x15(nm)	≤ 120	137	8/15/2022		
Y @15x15(nm)	≤ 120	166	8/15/2022		
Mag(nm/cm)	<50	-48	8/15/2022		
Die Rotation(urad)	<5	0.476	8/15/2022		
Trapezoidal X(nm/cm2)	<50	-32	8/15/2022		
Trapezoidal Y(nm/cm2)	<50	-24	8/15/2022		

4. Material handling					
4.1 Pre-alignment accuracy(Optical Sensor)					
Xm1w1 (um)	≤ 7	2.3	7/28/2022		
Ym1w1 (um)	≤ 7	3.3	7/28/2022		

Ym1w2 (um)	≤ 7	2.3	7/28/2022		
5. Overlay performance					
5.1 Stage repeatability					
X [nm]	≤ 100	17.3	8/15/2022		
Y [nm]	≤ 100	58.7	8/18/2022		
5.2 Single machine overlay (99.7%)					
X - Max 99.7%	≤ 150	57	8/15/2022		
Y - Max 99.7%	≤ 150	57	8/15/2022		
6. Wafer throughput					
6.1 Wafer throughput at 200 mJ/cm2	≥ 64	64.75	8/15/2022		
6.4 Reticle exchange time (seconds)	≤ 40	24.3	7/28/2022		

The tests below require CD CIM or Other					
Focus Leveling					
Out Of Focus	Zero per wafer				
Imaging (Target CD)					
UDOF	>1.2um				
Intra Filed CD	+/- 0.05um @ 0.5+/-0.025um mean CD				
Target CD reproducibility	0.5 +/-0.05um				
Overlay					
Box in Box	<150nm				
Overlay on Produt wafer	<150nm				
System Stability					
3 day run test	Zero errors				
Contamination					
Topside particles	,3 Particles (0.5um or larger)				