



NSR-2205i12D TEST SHEET

(6" Reticle , 22mm Field 8" Notch Wafer)

No	Item	Specification	Result				Condition	Remark		
1	Exposure Power	700 mW/cm² or more	Normal		775.866 mW/cm²		On the wafer surface when replacing the lamp SLOT 1 : Conv. NA=0.63			
2	Illumination Uniformity	Within ± 1.5%	Normal		1.49%		Within exposure range: 3 times of measurement			
3	Intergated Exposure Stability	50 mW/cm² or more Within ±1.0% 100 mW/cm² Within ±0.5%	Time (ms)	Specification (mJ/cm²)	Read Value (mJ/cm²)	Result (%)	(1)Input time : 100msec (2)Input time : 200msec (3)Input time : 400msec (4)Input time : 800msec 10 measurements			
			100	49.5 ~ 50.5	49.9	-0.20				
			200	99 ~ 101	99.8	-0.20				
			400	198 ~ 202	199.5	-0.25				
			800	396 ~ 404	398.9	-0.28				
4	Wafer Holder Flatness	Within 2.0 μm / 200mm	Max - Min		1.5 μm		Max: 0.670 Min : -0.830			
5	Leveling Setting Accuracy	Within ± 1.0sec	X:-0.269, Y:-0.066, R:0.694, P:-0.237				Measurement 10 time			
6	Auto Focus Repeatability	(Max-min/2)Within ± 0.10 μm	0.082 μm				1 wafer 10 times shot center measurement			
7	Reticle Blind Setting Accuracy	+0.4 to +0.8mm (on reticle)	Xp		0.65		1 Wafer, shot measurement			
			Xm		0.6					
			Yp		0.6					
			Ym		0.65					
8	Reticle Rotation	X ≤ 0.02 μm 3σ ≤ 0.02 μm	Absolute value 0.007 μm				5 times of measurement			
			Repeatability 0.002 μm							
9	Array Orthogonality	Within ±0.1 sec	0.082 sec(0.39 urad)				After soft correction			
10	Stepping Precision	NORMAL ±0.045 μm (3σ)	3 Sigma				SMCP : 228STEP			
			x	0.015 μm	y	0.015 μm				
11	Lens Distortion (Including Magnification error)	Within ±0.055 μm	Max				SLOT1 Conv. : Lens NA=0.63			
			Xmax	0.022 μm	Ymax	0.046 μm				
			Min							
			Xmin	-0.045 μm	Ymin	-0.013 μm				
12	LSA Telecen	Within ±3 μm	x	1.82	y	0.94	Correction after measurement with software			
13	FIA Telecen	Within ±3 μm	x	1.25	y	-0.68	Correction after measurement with software			
14	Overlay-LSA	X +3σ≤0.065 μm(shot center+4 corners)	x	0.027 μm	y	0.035 μm	Overlay in resist image			
15	Overlay-FIA	X +3σ≤0.065 μm(shot center+4 corners)	x	0.056 μm	y	0.063 μm				
16	Focus Calibration repeatability	Within 0.15 μm	0.09 μm				Nikon test reticle 20 measurements			
17	Wafer Prealignment repeatability	X Y T 3σ≤15 μm	X: 3.1 μm , Y: 5.8 μm , T: 7.2 μm , Y-T: 18.6 μm				Same wafer 20 measurements X,Y,θ,Y-θ, independent evaluation	Measure only 0 degrees 90 degree correction		
18	Open Flame (Max.Exposure Area)	22.0 X 25.2mm	OK				1 wafer, shot measurement			
19	Field Inclination	Max-Min Within 0.35 μm	0.345 μm				91° 0.35μm H&V H/V SLOT 1 : Conv. NA=0.63			
		AST Within 0.35 μm	-0.135 μm							
20	Magnification Control	Within ± 0.020 μm	Focus : -0.057 μm Mag : 0.002 μm				INIT,HEAT 150, COOL 180 SLOT 1 : Conv. NA=0.63			
21	Mointion Test	Reticle All slot	All Slot load/unload				(1)Reticle 10 Slot			
		Wafer 200ea	wafer 200 ea OK				(1) Continuous exposure of 200 wafers			