

Nikon NSR-S204

1. Equipment Configuration

Inspection Item	Requirement / Details	Recorded Result
Equipment model	Confirm equipment model	S204B
Wafer handling size	6-inch / 8-inch	8-inch
Reticle size	5-inch / 6-inch	6-inch
PPDJ function	Confirm whether the function is available	Not recorded
Barcode function	Confirm whether the function is available	Not recorded
KrF laser	Confirm laser model and related information	Cymer ELS-6400
Computer model	Confirm computer model	Handwriting unclear
Tape drive	Confirm availability	Not recorded
Stage configuration	Single or dual configuration	Dual
Inline components	Some products require immediate development after exposure	Available
Test reticle	HA / IIB / HDIS / HMF / HCID	Not clearly recorded
Number of reticle layers	Confirm layer quantity	20
Transformer	Confirm condition/configuration	Not recorded

Temperature-controller temperature	Check temperature	Not clearly recorded
LSA laser tube	Check condition	Not recorded
MLTC motor temperature control	FC3283 coolant temperature control	Not recorded
Chamber air-conditioning system	Check condition	Not recorded
LLTC	FC3283 coolant temperature control	Handwriting unclear
RS interferometer model	5517D	Not clearly recorded
WS interferometer model	5517C	Handwriting unclear
Blind	Confirm whether present	OK
Number of SMIF ports	Confirm quantity	None
AVIS spacer	Confirm whether present	None

2. Main Power and Air-Conditioning Checks

System	Inspection Item	Specification	Recorded Result
Main power	Check air pressure	2.75–3.25 kg/cm ²	Normal
Main power	Check vacuum pressure	At least 500 mmHg	Normal
Main power	Turn on the main power switch	—	Turned on
Air conditioning	Press the air-conditioning switch	Air conditioner operates normally	Operating
Air conditioning	Check compressor low pressure	4.2–5.5 kg/cm ²	Normal
Air conditioning	Check compressor high pressure	14–16 kg/cm ²	Normal
Air conditioning	Check the chamber alarm indicator	Alarm button must not be illuminated	Normal

3. Equipment Power-On and Initialization

System	Inspection Item	Expected Condition	Recorded Result
Control unit	Check the temperature controller	Matches the set temperature	Handwritten "OK"
Control unit	Turn on the rear power switch	—	Handwritten "OK"
Control unit	Turn on the control-board power switch	—	Not clearly recorded
Wafer-load unit self-check	Check the control-board LED display	No alarm message	Handwriting unclear
Wafer-load unit self-check	Check the red light on the SP board	Blinking	Not clearly recorded
Reticle-load unit self-check	Check the control-board LED display	No alarm message	OK
Reticle-load unit self-check	Check the red light on the SP board	Blinking	OK
Wafer-stage self-check	Check the interferometer power "RUN" indicator	Illuminated	Not clearly recorded
Wafer-stage self-check	Check the control-board LED display	No alarm message	"06" written
Wafer-stage self-check	Check the red light on the SP board	Illuminated	Not clearly recorded
RA unit self-check	Check the control-board LED display	No alarm message	Not recorded

RA unit self-check	Check the red light on the SP board	Illuminated	Not recorded
WA unit self-check	Check the control-board LED display	No alarm message	Not clearly recorded
WA unit self-check	Check the red light on the SP board	Illuminated	Handwriting unclear
LC unit self-check	Check the control-board LED display	No alarm message	Handwriting unclear
LC unit self-check	Check the red light on the SP board	Illuminated	OK
Main control computer	Perform complete system initialization	No alarms	Not recorded

4. Stage and Material-Transfer Confirmation

System	Inspection Item	Requirement	
Stage	Confirm the interferometer moving mirror	Confirmation required	
Stage	LC Start	Perform startup	
Stage	FC2 Repeat (M-V)	Perform repeat test	
Reticle loader	Transfer reticles to the stage	2 reticles	
Wafer loader	Transfer wafers to the stage	5 wafers	

5. Illumination and Focus-Signal Adjustment

System	Inspection Item	Specification / Requirement
Mercury lamp	Confirm installation and power-on; reset the timer	Confirmation required
Halogen lamp	Confirm installation and power-on; reset the timer	Confirmation required
AF signal	Move to the FM position and confirm that the lamp illuminates	Confirmation required
Illumination uniformity	Perform the initial illumination-uniformity test	Record uniformity percentage
Illuminance	Test using an illuminance meter	Record the average value
New lamp output	Confirm lamp intensity	At least 600 mW/cm ²

6. RA and LSA Alignment Measurements

Inspection Item	Measurements to Record
SRA coordinates for NSR-i11D	Rx1x, Rx2x, Ry1x and Ry2x
LSA-X and LSA-Y coordinates	Center-coordinate value of the fourth waveform peak
LSA measurements	LSA-X and LSA-Y
Telecentric measurement	Telcen X
Position prediction test	Perform and record the results

7. Synchronization and Autofocus Tests

Inspection Item	Specification	Recorded Handwritten Values
Synchronization accuracy	MSD: less than 20 nm; mean: less than 5 nm	VLMT: 0.03; SACT: 0.05; STDT: 22.8; STDA: 4.0
AF PSD	10-point test	No result clearly recorded