



KrF Scanner

NSR-S220D

Proven Solutions Through Evolution



Employs *Streamalign* Platform for Improved Accuracy and Productivity

The NSR-S220D KrF scanner realizes throughput of more than 230 WPH and high accuracy of below 6 nm MMO. The extendible *Streamalign* platform contributes to stable volume manufacturing of multigenerational cutting-edge devices and to reducing the cost of ownership.

NSR-S220D

Performance

Resolution	≤ 110 nm
NA	0.82
Exposure light source	KrF excimer laser (248 nm wavelength)
Reduction ratio	1:4
Maximum exposure field	26 mm × 33 mm
Overlay	SMO*1: ≤ 3 nm, MMO*2: ≤ 6 nm
Throughput	≥ 230 wafers/hour (96 shots)

*1 Single Machine Overlay: machine-to-self overlay accuracy (NSR-S220D#1 to S220D#1)

*2 Mix and Match Overlay: machine-to-machine overlay accuracy (NSR-S220D#1 to S220D#2)

Key Features of the *Streamalign* Platform

• Bird's Eye Control

Enabling superior yield

- Hybrid encoder/interferometer system for wafer stage position measurements delivers optimal stage performance.
- Use of 2D encoders for reticle stage position measurements delivers measurements of the stages that are insensitive to air fluctuations.
- Dramatically improves accuracy and stability.
- Provides superior focus control.
- Improved overlay capabilities of 3 nm or less

• Stream Alignment

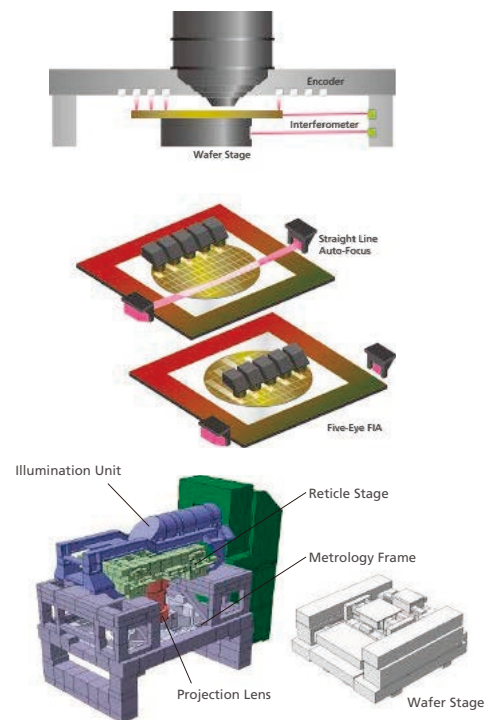
Enabling optimal affordability

- Straight Line Auto-Focus generates dense map of the wafer surface to enhance focus control (using a wide AF beam span).
- Enables increased alignment sites with minimal productivity impact using Five-Eye FIA.
- Greatly reduces wafer overhead time.
- Throughput capabilities of 230 WPH or more

• Modular² Structure

Enabling rapid production ramps

- Modular design enables efficient installations and simplifies maintenance.
- Provides optimal uptime with modular design and replacement of individual components.
- Extendible platform enables multigenerational use.



CLASS 1 LASER PRODUCT



WARNING

TO ENSURE CORRECT USAGE, READ MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.

The export of this product is controlled by Japanese Foreign Exchange and Foreign Trade Law and International export control regime. It shall not be exported without authorization from the appropriate governmental authorities.

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