



ArF Immersion Scanner

NSR-S625E

Proven Solutions Through Evolution



ArF Immersion Scanner for Middle Critical Layers That Is Ideal for Cutting-edge Semiconductor Manufacturing

This is the NSR-S625E ArF immersion scanner, which inherits the proven *Streamalign* platform.

It delivers a throughput approximately 1.3 times that of its predecessor, the NSR-S622D, and has significantly improved its operational stability.

Incorporating an advanced inline Alignment Station (iAS), the NSR-S625E contributes to enhanced production efficiency for a wide range of semiconductor devices.

NSR-S625E

Performance

Resolution	≤ 38 nm
NA	1.35
Exposure light source	ArF excimer laser (193 nm wavelength)
Reduction ratio	1:4
Maximum exposure field	26 mm × 33 mm
Overlay	≤ 2.5 nm (MMO* ¹)
Throughput	≥ 280 wafers/hour (96 shots)

*1 Mix and Match Overlay: machine-to-machine overlay accuracy (NSR-S625E#1 to S625E#2)

Key Features

• Streamalign Platform Stream Alignment

- Straight Line Auto-Focus enables quick wafer profile mapping and enhanced focus control.
- Enables increased alignment sites with minimal productivity impact using Five-Eye FIA

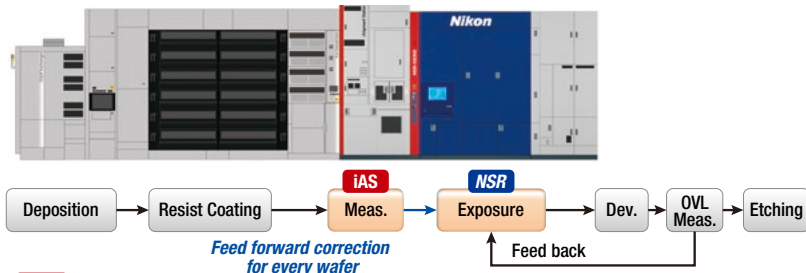
• Advanced inline Alignment Station (iAS)

Bird's Eye Control

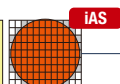
- Hybrid encoder/interferometer system delivers optimal stage performance.

Modular² Structure

- Simplifies installation and maintenance by means of the modular design



Measure and FF
- Dense sampling
- High order grid correction



Alignment on the NSR
- Sparse sampling
- Linear grid correction



Alignment Corrections

An alignment station enables fast and ultra-precise wafer measurement and grid error correction without sacrificing the throughput of the lithography system. When connected inline to a lithography system, it is known as iAS, and allows multi-point alignment for every shot, dramatically enhancing the accuracy of the system without impacting its throughput.

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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