



i-line Scan Field Stepper

NSR-SF155

Throughput greater than 200 wafers per hour



Greater Throughput with Skyhook Structure and Higher-speed Wafer Stage

i-line Scan Field Stepper NSR-SF155

The NSR-SF155 i-line scan field stepper delivers powerful performance for non-critical layers in mass production of next-generation memory and microprocessors. Like the SF150, the NSR-SF155 utilizes Skyhook Technology, which enables the projection lens to be suspended from the body and away from the floor, greatly reducing vibration levels. Furthermore, the NSR-SF155 boasts increased wafer stage speed and improved chamber temperature stability through heat countermeasures. The NSR-SF155 delivers a throughput of 200 wafers or more per hour for 300 mm wafers.

Main Features

- **Superior throughput**

Combining the optimal stepper platform, Skyhook Technology, and a faster wafer stage has greatly reduced vibration and increased throughput. The NSR-SF155 boasts superior throughput of 200 or more 300 mm wafers per hour.

- **High overlay accuracy maintained**

As with the NSR-SF150, the NSR-SF155 employs the Skyhook platform and a stage counterweight, and heat countermeasures in the chamber achieved by revising the air conditioning duct layout, to maintain an overlay accuracy of 25 nm or better.

- **Low total cost of ownership**

Nikon has developed a system that enables customers to upgrade the NSR-SF150 on their production lines to the NSR-SF155. Furthermore, improved yield through heat countermeasures in the chamber coupled with high throughput gives the NSR-SF155 the lowest total cost of ownership.

Performance

Resolution	≤ 280 nm
NA (numerical aperture)	0.62
Light source	i-line (wavelength 365 nm)
Projection magnification	1:4
Exposure field	26 x 33 mm
Overlay	$ M + 3\sigma \leq 25 \text{ nm}$
Throughput (per hour)	300 mm wafers: 200 or more wafers (exposure dose 200 mj/cm ²)

Skyhook mechanism



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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This product was developed and manufactured in the factory certified under ISO 9001.