



FPD Lithography System

# **FX-6AS**

Gen 6 Plate FPD Lithography System with  
the Highest Level of Resolution



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## FPD Lithography System FX-6AS

The FX-6AS produces leading edge small-and-medium-sized high-definition panels from Gen 6 plates. The newly-developed projection lens enables the highest level of resolution of 1.0  $\mu\text{m}$  using a phase shift mask, improved productivity and high overlay accuracy.

### Key Features

#### • Multi-lens System

The FX-6AS features the multi-lens system consisting of multiple projection lenses. This design enables a wide exposure field and excellent resolution.

#### • High Resolution

Nikon has developed a new projection lens with a high NA that has further advanced the evolution of the previous model. The FX-6AS employs an i-line light source which has a track record in high volume production, and an innovative focus correction system that was developed for the FX-68SH/68S. These enable the high volume production of panels with a high resolution of 1.0  $\mu\text{m}$  (L/S) using a phase shift mask, while ensuring high CD uniformity over the entire surface of Gen 6 plates.

#### • High Overlay Accuracy

High overlay accuracy is realized by using a new projection lens with reduced aberration in combination with highly accurate measurement and position control performance of the previous model.

#### • High Throughput

The FX-6AS achieves a high resolution of 1.0  $\mu\text{m}^{*1}$  with the same exposure field as the previous model. It also provides a high throughput of 85 plates per hour due to increased illuminance resulting from optimization of the illumination system, while enabling 4-scan on a Gen 6 plate.

#### • Stable Exposure Performance

The FX-6AS employs a variety of calibration functions from the previous model, providing stable exposure performance during operation.

### Performance

Resolution (L/S)	1.0 $\mu\text{m}^{*1}$ (i-line)
Projection magnification	1:1
Overlay	$\leq \pm 0.23 \mu\text{m}$
Plate size	1,500 mm $\times$ 1,850 mm
Takt time	42 s/plate Conditions: 1,500 mm $\times$ 1,850 mm, 4 scans, i-line, 30 mJ/cm <sup>2</sup>

\*1 When using a phase shift mask



#### WARNING

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

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