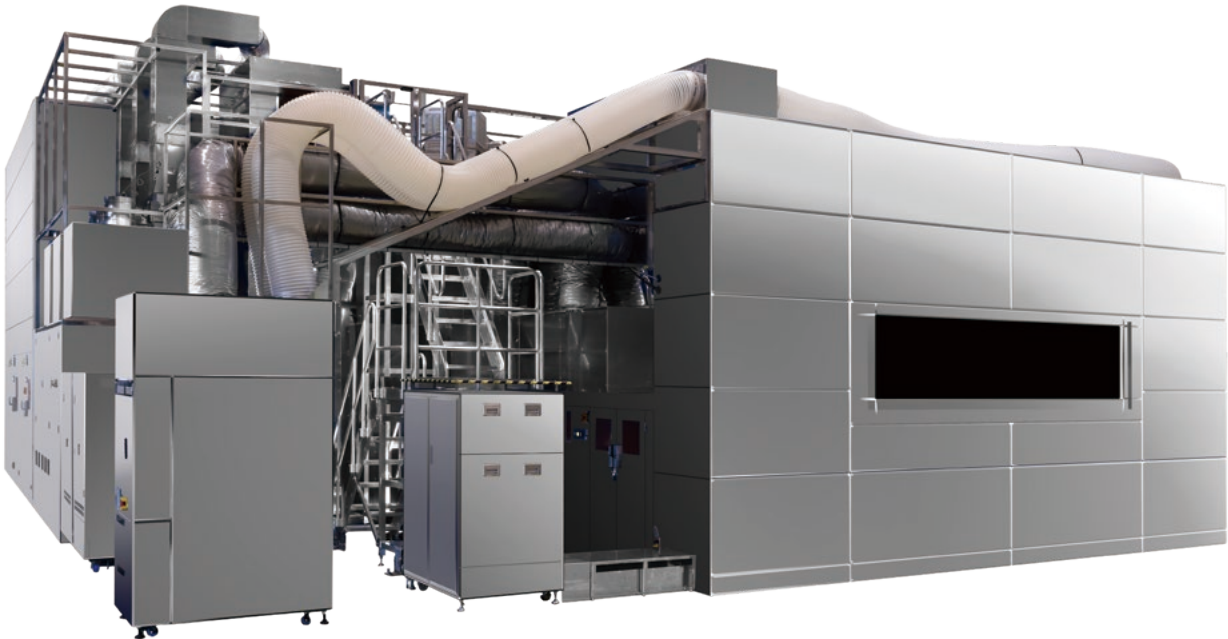




FPD Lithography Systems

FX-103SH/103S

Gen 10.5 Plate FPD Lithography Systems for
High-definition Panel Production



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FPD Lithography Systems FX-103SH/103S

By incorporating techniques from both the FX-67S2, which is ideal for the production of small-and-medium-sized high-definition panels, and the FX-86SH2, which excels in the production of TV panels, the FX-103SH/103S is optimized for manufacturing large-sized high-definition panels and achieves a shorter takt time than our conventional Gen 10 lithography system. The FX-103SH achieves a high resolution of 2.2 μm .

Key Features

• Multi-lens System

Both models feature the multi-lens system consisting of multiple projection lenses. This design enables a wide exposure field and excellent resolution.

• Short Takt Time

Incorporating the renewed exposure sequence and calibration sequence of the conventional model, the FX-103SH/103S realizes faster and higher accuracy exposure.

• High Resolution

In making the Gen 10.5 FPD lithography system, the FX-103SH has fully enhanced illumination and multi-lens systems, both of which use Nikon's proprietary resolution enhancement technique, originally developed for the FX-86SH2. The FX-103SH incorporates

a new auto-focus system that optimally corrects the measurement errors of mask bending and plate flatness. This enables a high resolution of 2.2 μm (L/S) while also ensuring a wide depth of focus.

• High Overlay Accuracy

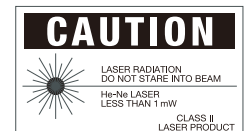
The position measuring system of the conventional model is renewed to improve measurement results, achieving a high overlay accuracy of $\pm 0.5 \mu\text{m}$.

• High Throughput

The FX-103SH/103S achieves a high throughput of 480 plates per hour for 65-inch panels, up 77 % compared with the conventional model, and 322 plates per hour for 75-inch panels.

Performance

	FX-103SH	FX-103S
Resolution (L/S)	2.2 μm (g+h+i-line)	3.0 μm (g+h+i-line)
Projection magnification	1:1	
Overlay	$\leq \pm 0.5 \mu\text{m}$	
Plate size	2,940 mm \times 3,370 mm	
Takt time	60 s/plate Conditions: 2,940 mm \times 3,370 mm, 4 scans, g+h+i-line, 30 mJ/cm ²	



WARNING

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

All of the products in this brochure are under export restriction. The export of these products is controlled by Japanese Foreign Exchange and Foreign Trade and International export control regime. They shall not be exported without authorization from the appropriate government authorities.

Performance and equipment are subject to change without any notice or obligation on the part of the manufacturer.

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