

# Orbotech Nuvogo™ 750/750XL

Mass Production Direct Imaging (DI)



## Orbotech Nuvogo 750/750XL

Orbotech Nuvogo 750/750XL is a mass production Direct Imaging (DI) solution, optimized for MLB and HDI PCB makers that use 405nm resists. Utilizing KLA's field-proven Large Scan Optics™ (LSO) Technology, this solution provides high imaging quality and high throughput (up to 7,000 panels per day per line), helping to decrease total cost of ownership (TCO) while maintaining optimal quality at high speeds.



## Benefits

### Mass Production Digital Imaging

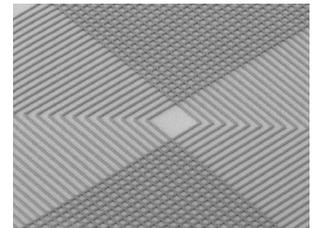
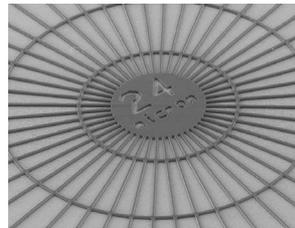
- High power laser for highest throughput
- Optimized imaging time with dual table transport mechanism
- Clean, handling-free production environment

### High Imaging Quality with LSO™ Technology

- High depth-of-focus for high quality on varying surface topographies
- Best fit for 405nm resists
- Optimal scaling modes for superior registration accuracy of  $\pm 12\mu\text{m}$

### Lower Total Cost of Ownership (TCO)

- Hardware and features designed to focus on the specific demands of MLB and HDI PCB makers, greatly reducing cost-per-print
- Optimized light path with a 405nm laser for further cost-per-print optimization
- Increased overall efficiency for significant long-term savings



Fine lines/spaces of  $24\mu\text{m}$

## Technologies



LSO™ Technology

## Orbotech Nuvogo 750/750XL for Mass Production Digital Imaging

Orbotech Nuvogo 750/750XL utilizes KLA's high power 405nm laser with its 405nm optimized light path. Equipped with advanced optics and electronics, it is designed to achieve fine structures at high speeds. Its dual table transport mechanism achieves maximum use of system time for panel imaging. Furthermore, the system's fast setup capabilities and automatic acquisition of targets facilitate smooth job changes. Orbotech Nuvogo 750/750XL also operates in a clean, hands-free environment, to ensure that there is no handling damage.

### High Imaging Quality with LSO™ Technology

Orbotech Nuvogo 750/750XL incorporates KLA's field-proven Large Scan Optics (LSO) technology to deliver high depth-of-focus for superior results on panels with varied topographies. Single scan allows uniform imaging of the entire panel.

#### Innovative Scaling Modes

- Auto Scaling/Fixed Scaling/Group Scaling/Wise Scaling

#### Traceability

- Enables panel tracking by marking: serial number stamp; sub-panel and PCB; date and time stamp; scaling stamp and machine ID by alphanumeric stamping or 1-D barcode/2-D barcode (Data Matrix Code)

#### Registration Accuracy

- Registration accuracy of  $\pm 12\mu\text{m}$

#### Ease-of-Use

- Operator-friendly, intuitive graphical user interface
- Seamless connectivity to CAM ensures fast and easy set-up
- Recognizes a wide array of different target types to meet any production demands

### Lower Total Cost of Ownership (TCO)

Orbotech Nuvogo family of DI solutions ensures reduced total cost of ownership while meeting the industry's increasing demands for high-end mass production. Specifically, Orbotech Nuvogo 750/750XL incorporates a 405nm laser with optimized optics, offering the best match for 405nm resists while reducing the machine cost.

## Specifications

	Orbotech Nuvogo 750	Orbotech Nuvogo 750XL
Maximum Throughput*	300 prints/h Imaging Size 24"x18"	290 prints/h Imaging Size 25"x18"
Minimum Feature Size*	24µm	
Imaging Energy Range	25 - 2,200mj/cm <sup>2</sup>	
Address Resolution	2.0µm	
Registration Accuracy (FtG)**	±12µm	
Side-to-Side Registration (FtB)**	24µm	
Maximum Substrate Size	635mm x 660mm	660mm x 812mm
Maximum Exposure Area	609.6mm x 660mm	635mm x 812mm
Substrate Thickness	0.025mm - 8mm	

\*Depends on photoresist properties

\*\* All values are 3σ, full format

- The above specifications are subject to change without notification.

### KLA SUPPORT

Maintaining system productivity is an integral part of KLA's yield optimization solution. Efforts in this area include system maintenance, global supply chain management, cost reduction and obsolescence mitigation, system relocation, performance and productivity enhancements, and certified tool resale.

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