NUVOGO™ 700/700XL
The New Way of Imaging

PCB Production Solutions
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Nuvogo™ 700 and Nuvogo™ 700XL are members of the Orbotech Nuvogo™ family of industry-leading Direct Imaging (DI) solutions. Incorporating Orbotech’s field-proven Large Scan Optics (LSO) Technology™ a 405nm laser with an optimized optic path, and the newest constantly evolving registration and scaling algorithms, this powerful platform ensures the best imaging performance and line quality, matched for 405nm resists. The Nuvogo™ 700/700XL is optimized for HDI, Flex and Rigid-Flex makers, designed for unprecedented throughput of up to 7,000 panels per day per line, and helps to decrease total cost of ownership (TCO) while maintaining optimal quality at high speeds.

Benefits

Leading Mass Production Digital Imaging
- Up to 7000 panels / day / line using automated in-line solution (300 panels per hour, per line)
- In-line solution and fully-integrated automation for seamless production
- Fast and easy setup, operator friendly, industry unmatched fast target acquisition
- Optimized imaging time with dual table transport mechanism
- Clean, handling-free environment

Advanced Laser Technology with 405nm Laser
- Best fit for 405nm resists
- Unmatched image quality and line uniformity with an optimized optic path

Highest Imaging Quality with LSO Technology™
- Unique optics design for optimal line structure down to 18μm L/S for the most advanced HDI production
- High Depth-of-Focus of ±200μm and greater, for unmatched quality on variating surface topographies
- Advanced scaling modes for optimal registration down to ±10μm

Lower Total Cost of Ownership (TCO)
- Increased overall efficiency for significant long-term savings
Leading Mass Production Digital Imaging

Nuvogo™ 700/700XL’s cutting-edge digital imaging solution sets a new standard in DI for mass production of high-end electronic devices. Equipped with the industry’s most advanced optics and electronics, Nuvogo™ 700/700XL is designed to achieve fine-line structures at unmatched speeds of up to 300 panels/hour per in-line solution (automated set of two systems). Nuvogo™ 700/700XL operates in a clean, hands-free environment, ensuring no handling damage. Orbotech’s proven dual table transport mechanism allows the system to achieve maximum use of system time for panel imaging. Smooth job changes are facilitated by the system’s fast setup capabilities and automatic acquisition of targets.

Highest Imaging Quality with LSO Technology™

Nuvogo™ 700/700XL incorporates Orbotech’s field-proven Large Scan Optics (LSO) Technology™ to deliver unmatched Depth-of-Focus (of ±200μm and greater) for superior results on panels with varied topographies (thin layers, Flex and Rigid-Flex). Single scan for Rigid-Flex allows uniform imaging of the entire panel, without any throughput loss for focus compensation mechanism.

Advanced Laser Technology with 405nm Laser

Nuvogo™ 700/700XL, with optimized optics, offers the best match for 405nm resists. Nuvogo™ 700/700XL works in sync with Orbotech’s field-proven LSO Technology™ to achieve superior imaging results.

Lower Total Cost of Ownership (TCO)

Nuvogo™ 700/700XL ensures greatly reduced TCO, enabling the manufacturers to quickly achieve maximum ROI, while still being able to meet the industry’s increasing demands for high-end mass production. Setting a new industry standard, the system provides efficient power consumption while still providing a powerful light source and the most sophisticated optical and electronic systems.

Innovative Scaling Modes

- Wise Scaling - best scaling mode for mass production, achieving highest panel unification in the batch
- Auto Scaling / Fixed Scaling / Group Scaling
- Partial Scaling - sub-area registration for thin core layers
- Extremely fast target acquisition enables minimum throughput loss

Registration Accuracy

Featuring registration accuracy down to ±10μm, annular rings with microvias can be stacked with greater precision.

Ease-of-Use

- Operator-friendly, intuitive graphical user interface
- Seamless connectivity to CAM for fast and easy set-up
- Recognizes many different target types to meet any production demands

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/2-D barcode (Data Matrix Code).