NUVOGO™ 800/800XL
The New Way of Imaging

PCB Production Solutions
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Nuvogo™ 800 and Nuvogo™ 800XL are members of the Orbotech Nuvogo® family of industry-leading Direct Imaging (DI) solutions. Incorporating Orbotech’s field-proven Large Scan Optics (LSO) Technology™, unique MultiWave Laser Technology™, and constantly evolving registration and scaling algorithms, this powerful platform ensures best imaging performance and line quality. In addition, with Orbotech’s MultiWave Laser Technology™, the Nuvogo™ 800/800XL provides maximum flexibility on a wide range of materials and applications. The Nuvogo™ 800/800XL is optimized for HDI, Flex and Rigid-Flex makers and designed for unprecedented throughput of 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

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

MultiWave Laser Technology™ for Maximum Resist Flexibility
- Compatible with any resist for maximum flexibility; supports optimal factory utilization
- Unmatched uniformity of line-structure quality

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 varying 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
- Suitable for a wide variety of resist types, offering the option to use lower-cost materials

Fine lines / spaces of 18μm for the most advanced applications
Double lamination resist achieved with MultiWave Laser Technology™
Leading Mass Production Digital Imaging

Nuvogo™ 800/800XL’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™ 800/800XL 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™ 800/800XL operates in a clean, hands-free environment, ensuring no handling damage. Its dual table transport mechanism achieves maximum use of system time for panel imaging. The system’s fast set-up capabilities and automatic acquisition of targets facilitate smooth job changes.

MultiWave Laser Technology™ for Maximum Resist Flexibility


Highest Imaging Quality with LSO Technology™

Nuvogo™ 800/800XL 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 throughput loss for focus compensation mechanism.

Lower Total Cost of Ownership (TCO)

The Nuvogo™ family of DI solutions ensures greatly reduced total cost of ownership while meeting the industry’s increasing demands for high-end mass production. The Nuvogo™ 800/800XL supports a variety of resist types enabling manufacturers to choose lower-cost resists. Adding to the light source reliability, the efficient power consumption, and lower service cost per print, the system offers manufacturers a significantly lower TCO to quickly achieve maximum ROI.

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).