NUVOGO™ 500/500XL
The New Way of Imaging

PCB Production Solutions
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Nuvogo™ 500 and the large format Nuvogo™ 500XL are members of the Orbotech Nuvogo™ family of industry-leading Direct Imaging (DI) solutions. They meet the high production standards of digital imaging of QTA, Flex and MLB applications. These cutting-edge systems are powered by the new MultiWave Laser Technology™, suited for solder mask and patterning offering maximum robustness on a vast range of resist types. Utilizing Orbotech’s field proven Large Scan Optics (LSO) Technology™, the Nuvogo™ 500/500XL maintains high Depth-of-Focus that is unmatched in the industry. With multiple job changes and fast setup time, Nuvogo™ 500/500XL helps to lower overall cost of ownership while maintaining optimal quality.

Benefits

QTA Production Digital Imaging
- Suitable for solder mask and patterning
- Up to 160 prints per hour
- Fast and easy setup; operator friendly
- Clean, handling-free environment

MultiWave Laser Technology™ for Maximum Resist Robustness
- Ensures flexibility to address a wide range of resist materials, with the highest throughput, both for conventional resists and solder resists
- MultiWave Laser brings unmatched quality and uniformity of line structure

Highest Imaging Quality with LSO Technology™
- Resolution of 24μm line/space for the most advanced applications
- High Depth-of-Focus of ±300μm and greater
- Optional advanced scaling modes
- Superior registration accuracy down to ±10μm

Lower Total Cost of Ownership (TCO)
- Lower service cost per print
- Increased overall efficiency for significant long-term savings
- Suitable for a wide variety of resist types, including lower-cost material

Leading Production Digital Imaging
The cutting-edge Nuvogo™ 500/500XL digital imaging solution sets a new standard in DI for the production of high-end electronic devices. Equipped with the industry’s most advanced optics and electronics and applying MultiWave Laser Technology™, Nuvogo™ 500/500XL is designed to be suited for solder mask and patterning. This robust system offers throughput of up to 160 prints/hour, with smooth job changes facilitated by the system’s fast set-up capabilities and automatic acquisition of targets. Nuvogo™ 500/500XL operates in a clean, hands-free environment, ensuring no handling damage.
MultiWave Laser Technology™ for Maximum Resist Robustness

Powered by MultiWave Laser Technology™, Nuvogo™ 500/500XL offers maximal flexibility by matching any resist to fit all practices. The adaptable multi-wavelength laser offers unrivaled power and precision for superior uniformity in line structure quality. Nuvogo™ 500/500XL works in sync with Orbotech’s field-proven LSO Technology™ to achieve an enhanced Depth-of-Focus for superior results on different panel topographies (thin layers, Flex and Rigid-Flex). Designed for highest production flexibility through maximum resist robustness, Nuvogo™ 500/500XL supports optimal capacity utilization helping to reduce overall operational costs and ensure a faster return on investment.

Highest Imaging Quality with LSO Technology™

Nuvogo™ 500/500XL incorporates Orbotech’s Large Scan Optics (LSO) Technology™ to maintain the field-proven industry unmatched Depth-of-Focus (of ±300μm and greater), for superior results on panel topography changes. Single scan for Rigid-Flex allows uniform imaging of the entire panel.

Lower Total Cost of Ownership (TCO)

Nuvogo™ 500/500XL ensures greatly reduced total cost of ownership, with an improved cost-per-print structure, fast setup time for multiple job changes and best in class service and support with wide distribution channels. 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. As the system is suitable for a wide variety of resist types, manufacturers have the flexibility to choose lower-cost resist types whenever possible in order to further reduce total operating costs.

Registration Accuracy

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

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 (optional): sub-area registration for thin core layers

Resolution and Line Uniformity

- Best line uniformity (down to 24μm) achieved using LSO Technology™ and a powerful light source

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

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)