

# Discovery™ OLB

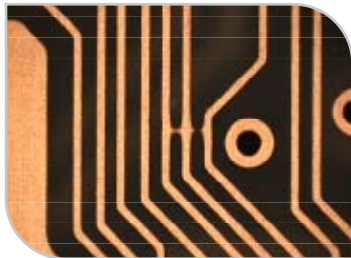


# Discovery™ OLB AOI System

Powered by Orbotech's field-proven SIP Technology™ - Discovery™ OLB is optimized for advanced Quick-Turn-Around (QTA) PCB production and First Article Inspection (FAI). Discovery OLB is an intelligent and powerful AOI system with a unique on-line verification bridge.

## Simple, Intelligent and Powerful

The world's best selling AOI is now available offering new technologies and an on-line verification bridge. Discovery OLB is equipped with an innovative built-in adjustable verification bridge that allows continuous access to the panel during verification for immediate results.



Unsurpassed image quality designed for accurate, high-speed display of suspected defects

## Benefits

- Allows operator to be within closest distance to panel
- High verification image quality
- Customized verification bridge that changes positions for different panel lengths
- Achieves exceptionally high MTBF for maximum availability



## Discovery OLB

Discovery OLB is the ideal AOI solution for Quick-Turn-Around (QTA) manufacturers and First Article Inspection (FAI) inspection. Discovery OLB enables you to:

- Easily access the panel for final verification
- Lower the number of missed defects during verification due to the low false alarm rate
- Easily complete the AOI and final verification stages using the system's innovative Push-to-Scan operation
- Enjoy unrivalled image quality - the verification's high-resolution camera and bright LED illumination provide accurate images of defects to ensure you make the best judgment calls
- Easily access the defect area thanks to the high-powered magnification optical head located at a convenient height



**SIP Technology™**



### **Push-to-Scan®:**

- A 'no set-up' process
- Top AOI results with minimal effort or training
- The easiest user-friendly interface (GUI)

### **Visual Intelligence:**

- Context-based detection provides the right sensitivity for every feature
- Full multi-layer panel understanding and feature specific algorithms identify critical vs. non-critical defects
- No trade-off between detection and false calls
- No time wasted on non-critical defects
- Adjustments are easy and intuitive

### **Highest Level of Real AOI Throughput:**

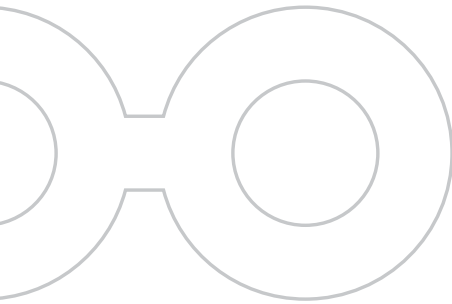
Discovery OLB is a powerful solution that focuses on achieving the highest levels of real AOI throughput.

With a fast scanning speed, short set-up time, minimal training and improved optimization procedures, most of the system's time is spent inspecting panels providing a better investment of your valuable resources.

## Specifications:

Technology Range	Down to 1.4 mil (35µm) line and space
Products Inspected	Inner layers: Signal, power & ground, mixed, cross shielding, inner with holes, build-up Outer layers: Signal, mixed, cross shielding, build-up Build-up layers: Laservias (conformal and non-conformal masks)
Materials Inspected	Conventional: Bare copper (shiny, matte), etched additive or plated copper, reverse treated foil-RTF, double-treated copper, gold plated conductors. Any laminate including FR4, Tetra function, Teflon, Roger etc Flex material: Polyimide, polyester Advanced build-up board materials: Any laminate including RCC Photoresist: Blue, purple and brown
Defects Detected	Shorts, opens, minimum line/space violations, nicks, protrusions, dishdowns, copper splashes, pinholes, missing or excess features, wrong size and position of features, clearance and split plane violations, blocked holes, annular ring violations, SMT violations
Inspection Methods	Full reference comparison • SIP – model based and contour comparison • Specific criteria per feature • Full multi-layer panel understanding
Panel Dimensions	Thickness range: 1-300mil (25-7500µm) Max. Panel size/Inspected area: 30" x 30" (762mm x 762mm)
Throughput	Line Width (mil) > 4 3 2 1.4 (µm) > 100 75 50 35 Sides/Hour 210 160 100 50  Based on panel size: 18" x 24" (457mm x 609mm) with 1" margine
Defect Verification	On-system verification: 1. Magnification range: X65 – X150 2. Adjustable verification bridge positions (for panel sizes: 15", 20", 24") 3. 80mm clearance height between the panel and verification head
Set-up Data Sources	CAM
Panel Registration Method	Pinless registration – panel edge alignment
Options	Flex package Marker Stamper

Specifications are subject to change without notice  
Discovery™ OLB system is class-1 laser product



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