

ALD770S i3D inline AOI

Leading the Way for Inspection Solutions

The ALD770S is a high speed inline AOI system which includes the state-of-the-art i3D technology, a high-speed digital camera as well as a multidirectional lighting module.

As a new member of the popular ALD AOI family, the ALD770S preserves all the advantages of the previous models, while it also delivers additional improvements based on customer requests and feedback per market research.

Faster and easier programming, additional options and features are added to already powerful and proven algorithms. All this makes the ALD770S AOI the most suitable and easy to integrate system into any modern production line.

The system delivers high-speed performance with no escapes, a very low FA rate which is easy to achieve on the most complicated and challenging PCB assemblies. In the same manner as all the ALD models, the ALD770S has a vast range of capabilities and is designed to overcome all PCB inspection challenges, including: shadows, various component colors, transparency, board warpage and many more. The system also offers support to offline programming and debugging. Features such as integrated barcode reading, various traceability options and software process controls are also available. The repair station delivers a clear image of the defect and a good sample, which allows fast verification and prevention of operator errors.

The ALD770S can be easily switched to pre-reflow (including 2D paste inspection), glue inspection and has the ability to a wave soldering application without requiring any HW modifications.

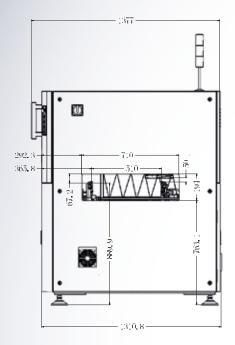
ALD770S - the Best Choice

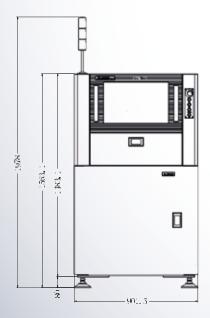
- i3D technology

 i3D technology
- Extremely low FA rate, high FPY, and no escapes
- ▼ 100% inspection coverage
- ➤ Ideal for inspecting 0201 and 01005
- components, 0.3 mm pitch
- ▼ Fast and accurate inspection
- Shadow-free, warpage-free solution, insensitive to board color
- ➤ Fast programming, intuitive user interface
- ▼ Effective quality verification
- Process control for defect prevention
- ➤ High MTBF, low maintenance cost









Functional Specifications	
Inspection method	i3D technology
Camera	5M pixel high-speed camera
Lighting system	Multi-directional lighting module
Program creation	CAD file import, central library, part number links, auto programming
Applications	Post reflow, pre-reflow (including 2D paste inspection), wave soldering
Operating system	Windows 7 Professional
Inspection Board Specifications	
PCB type	All colors and all pad finishes
PCB size range	50mm x 50mm (min) ~ 510mm x 500mm (max)
PCB warpage	<5 mm, warpage-free technology
PCB thickness range	0.3mm to 5mm
Clampingsystem edge clearance	Top 2.5mm, Bottom 3mm
PCB weight	Up to 3kg
Underside/Topside clearance	85mm/30mm
Min component size	01005, 0.3 mm pitch
Inspection Performance	
Resolution/range/speed	15μ/pixel FOV:38.4mm x30.9mm Test speed<0.2 sec/FOV
Inspection coverage	100% inspection coverage, all components are inspected for all types of the defects: missing, misalignment, billboard, up-sidedown, tombstone, damaged, wrong component, lifted leads, open, insufficient/excessive solder, shorts, wrongcomponent, polarity, solder balls, etc
Shadow effect	Shadow-free technology
Component color	Component color and transparency do not affect system performance, but can be used for wrong component inspection
OCV/OCR	Standard on each machine
Doubleside check	Identifies and automatically changes side
Features and Options	
Special features	Supports auto-change program, multi-boards (include bad mark) and multi-program inspection modes
Barcode system	Auto read barcode with camera - 1D and 2D; External reader reads back side barcode(option)
Server mode	Central server multiple machines data handling
Remote control	Remote control through TCP/IP for verification, system operation and program adjustment
Additional Options	SPC, repair station, Offline program, External barcode scanner Support applications - Site Dashboard, First Article Inspection, Package Link
Hardware	
Conveyor	Automatic clamp, autoload and unload, automatic width adjustment
Conveyor direction/time	Left to Right or Right to Left in/out time 4 sec
X/Y driver	Screw and AC servo driver, Accuracy <10μ; PCB fix, camera moves X/Y
Display	22 inch TFT LCD
Power Supply	AC230V 50/60Hz <1.5KVA
Compressed air	0.4-0.8 MPA
Equipment communication	SMEMA
Operational conditions	10~35°C, 35~80% RH (no dew)
Dimensions and Weight	
Weight	700 kg
Dimensions	1377x901x1563 (LxWxH) (not including signal light tower height)
Conveyor height	890mm to 980 mm