



# ALD770 i3D Inline AOI

## Leading the Way for Inline Solutions

Pre Reflow, Post Reflow SMD  
Wave Soldering & Solder Paste Inspection

### ALD770 i3D Inline

The ALD770 i3D Inline is the ultimate inline solution for your production, featuring an extremely low FA rate, high first pass yield and no escapes. It offers support for offline programming, offline debugging, a complete tracking system, integrated barcode reading and repair stations. Including the fastest and easiest programming technology available.

ALD770 i3D meet customers demand from low-volume high-mix to high-volume low-mix manufacturing.

The machine's automatic calibration and maintenance take just a few minutes each week. It is designed to overcome all PCB design challenges including shadows, different component colors, PCB warpe, and many more.

ALD770 i3D is one of the fastest and most accurate machines available on the market.

Outstanding accuracy makes it ideal for the detection of 0201 and 01005 components. Each machine is checked and certified for accuracy better than 40 microns, according to CeTaQ certification. Easy-to-use pre-reflow application enables checking for all pre-reflow defects including the solder paste on the PCB.

\*ALD625 i3D is the matching offline machine that can share programs and library.

### Unique Technologies Implemented in this Model

- i3D Technology
- i3D Height Analyzing & coplanarity check
- i3D Shape Analysis
- Debug-Free Technology (Including flexible packages)
- Escape-Free Technology
- False Calls Control Technology
- Overcome all inspection challenges
- Small Chip: Coplanarity, offset, cold soldering, no solder, missing, tombstone and more.
- Production Process Control SW: prevent defects in real time, improve and control your production.

i3D detects small chip coplanarity, cold soldering, missing, tombstones and more errors.



## ALD770 i3D

FOV/Test Speed		FOV (20 um) : 40.96x40.96 ; Test speed < 180 ms/FOV FOV (15 um) : 30.72x30.72; Test speed < 160 ms/FOV	
Inspectable PCB's	Size	50x50mm(Min) to ~ 510x500mm(Max)	
	Thickness	0.3 to 5 mm	
	Clamping Edge	TOP ~ 2.5 mm Bottom ~ 3 mm	
	PCB Height Clearance	Top Side: 30 mm Bottom Side: 85 mm	
Operating System		Windows 7	
Display		22-Inch TFT LCD	
X/Y Driver		Screw and AC servo driver with an accuracy <20µm; camera	
Power		AC230V 50/60 Hz 1.5KVA *AC 110 V model available on request	
Compressed Air		Compressed air is not used by this model.	
Weight		~700 Kg	
Dimensions		1300x900x1570mm (LxWxH)	
Humidity		10 ~ 35°C 35 ~ 80°C RH (No dew)	
Certificate		CE Certificate	

## ALD770 i3D General Model Features

i3D Optical Model	i3D Technology	The 3 CCD intellectual cameras determine the shape out of the 3D image. Comprehensive coverage 0 to 360 degrees around as well as 90 degrees up and down.
	i3D Height Analysis	Converts the height of the object to image length and position. Enables the detection of lifted leads and slightly tombstoned cold soldering on small chips.
	i3d Shadow-Free Design	A telecentric lens and innovative design prevent shadowing.
Certificate	CE Certificate	
Applications	Post reflow Pre reflow, wave soldering & solder paste.	
Inspection Items	Detects missing, misaligned, billboard, coplanarity, overturn, wrong part, polarity, OCV, damaged, reversed, leveling, and tombstones. Solder defects covered: overflow, insufficient solder, unsoldered, short (1D & 2D), stain, cold soldering and wetting problems, lifted leads, solder balls, holes, pin direction, missing pins and J, L,U-Leade. Detects	
Barcode System	Camera can read and transfer the barcode automatically (1D or 2D). Features a multi-mark function check including Bad Mark.	
Remote Control	Remote control enabled through TCP/IP; remotely check results, start and stop the machine, or modify the program at any time.	
Sever Mode	Control several AOI through the central server (optional).	
Application Features	Shadow	Shadow-free technology.
	Warpage	<5 mm Warpage-free technology.
	OCV \ OCR	Standard on each machine.
	Double Side Check	Identify and change sides automatically.
	LED	LED polarity and wire bonding check.