

ASR500I

POST WAVE INLINE AOI



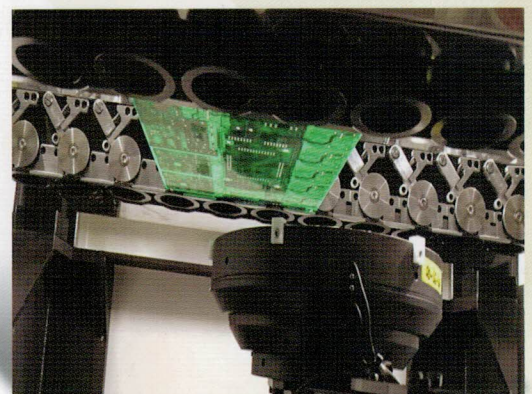
ALeader ASR500I AOI system is specifically designed to inspect the assembled PCB's after wave soldering process.

Equipped with the unique optical head located under conveyor, **ASR500I** performs an optical inspection of the bottom side of printed circuit boards with astonishing speed and efficiency.

Using state-of-the-art **i3D Technology** and supported by the powerful algorithms, system is easy to program and it delivers unprecedented high speed performance giving no escapes and extremely low FA rate on the most complicated and challenging PCB assemblies.

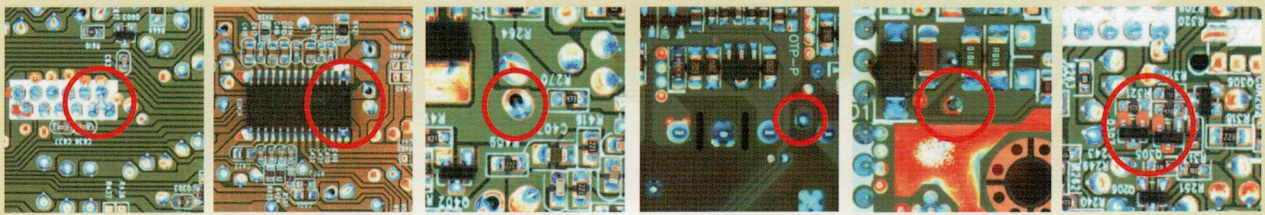
Specially designed roller conveyor allows handling both PCB's and heavy jigs (up to 15 kg).

System offers support for offline programming and debugging. Integrated barcode reading capability and various traceability options, software process control are available. Repair station delivers a clear image of the defect and a good sample allowing fast verification and preventing the operator mistakes.



ASR500I– the Best Choice for Post Wave Optical Inspection

- Special design for Post Wave application
- Extremely low FA rate, high FPY and no escapes
- 100% inspection coverage
- Fast and accurate inspection
- Fast programming, intuitive user interface
- Effective quality verification
- Process control for defect prevention
- High MTBF, low maintenance cost



Socket Short

IC Short

Poor Hole Fill

Missing Pin

Insufficient

Transistor with insufficient Solder

Functional specification

Inspection method	i3D technology
Camera	4M pixel high speed camera
Lighting system	Extra bright RRGB coaxial ring tower LED light (Color light)
Program creation	CAD file import, central library, part number links, auto programming
Applications	Post wave soldering inspection
Operation system	Windows 7 Professional

Inspection Board specification

PCB type	All colors and all pad finishes
PCB size range	50mm x 50mm (min) ~ 510mm x 460mm (max)
PCB thickness range	0.5mm to 4.5mm
Clamping system edge clearance	Top 3.5mm, Bottom 3.5mm
PCB weight	Up to 15kg
Underside/Topside clearance	40mm/110mm
Min Component and Pitch	01005 chip, 0.3 IC pitch

Inspection performance

Resolution/ranges/speed	15μ/pixel FOV:30.72mm x30.72mm Test speed<0.2 sec/FOV
Inspection coverage	TH – presence, solder shorts, solder inspection: Pin/Blow hole, cracked joint, incomplete joint, poor hole fill, sunken joint, etc. SMT - missing, misalignment, billboard, up-side-down, tombstone, damaged, wrong component, lifted leads, open, insufficient/excessive solder, shorts, polarity, solder balls, etc...
Component color	Component color and transparency doesn't affect performance, but used for wrong part inspection
OCV/OCR	Standard on each machine

Features and options

Special features	Supports auto change program, multi boards (include bad mark) and multi programs inspection modes
Barcode system	Auto read barcode with camera - 1D and 2D. External barcode scanner for top 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

Hardware

Conveyor	Automatic compensation to avoid PCB distortion, auto-load and unload, roller conveying, automatic width adjustment
Conveyor direction	Defined on machine order
Board In/Out time	3 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	0.4~0.6MPA
Equipment communication	SMEMA
Operational conditions	10~35°C, 35~80% RH (no dew)

Dimensions and Weight

Weight	Approx. 700 kg
Dimensions	940x1450x1250 (LxWxH) (not including signal light tower height)
Conveyor height	730mm to 780 mm

