

AVX1000HG



Fully Automated SMT Rework & Assembly

UNLIMITED COMPONENT SIZE FOR ALIGNMENT/REFLOW



Board Image Interface for Program Execution

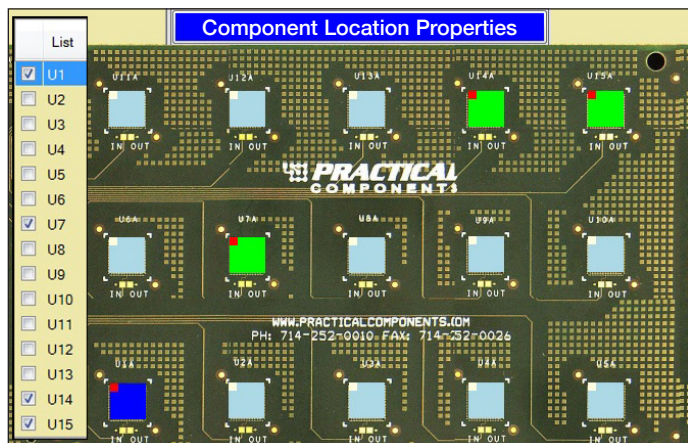
- Camera Scans a board, providing the ability to execute rework operations on single/multiple sites in one run.
- Fiducial Recognition System can eliminate the need for vision alignment for faster throughput.
- Side View Camera (option) allows for placement and solder reflow verification.

Automatic Component Precision Alignment

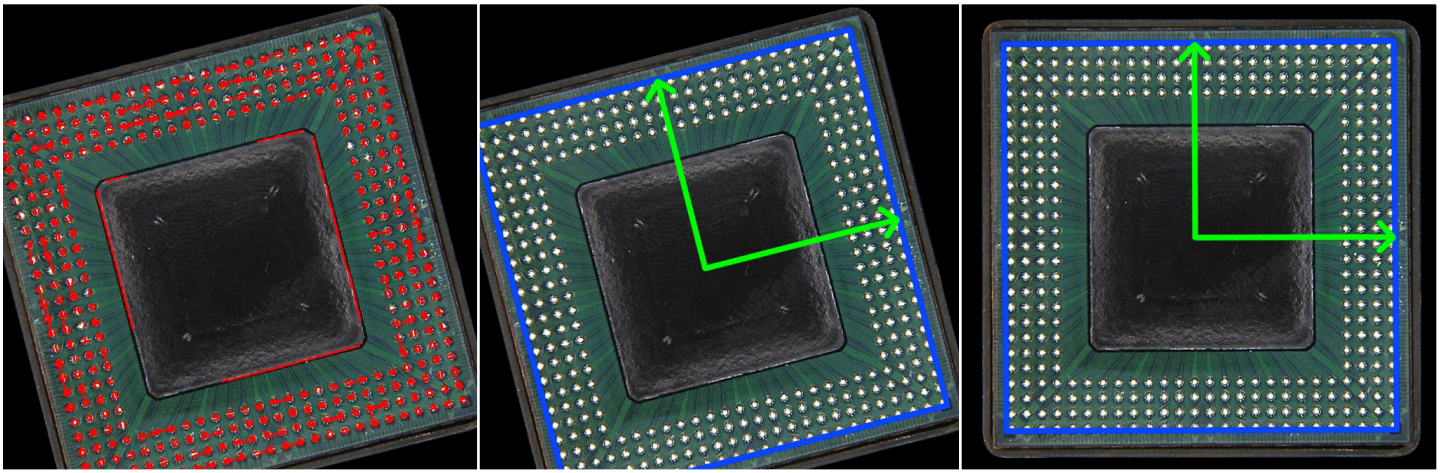
- Dual Digital Camera System with Auto Feature Recognition Software.
- Component Single or Multiple Field of View with Optical and Digital Zoom for clear viewing and alignment from 01005 up to 150mm.

Closed-Loop, Programmable Automation

- Motorized X, Y, Z, and Theta axis for fully automated rework minimizes operator involvement.
- Vacuum Sensor Control for gentle and automatic component removal. Site clean non-contact tip height is accurately monitored and fully automatic.
- Automatic nozzle loader/changer to insure process speed and operator safety.
- Programmable Board Preheat with thermocouple or optional IR Non-Contact Sensor.
- High Speed Force Feedback provides gram force sensitivity for delicate component placement.



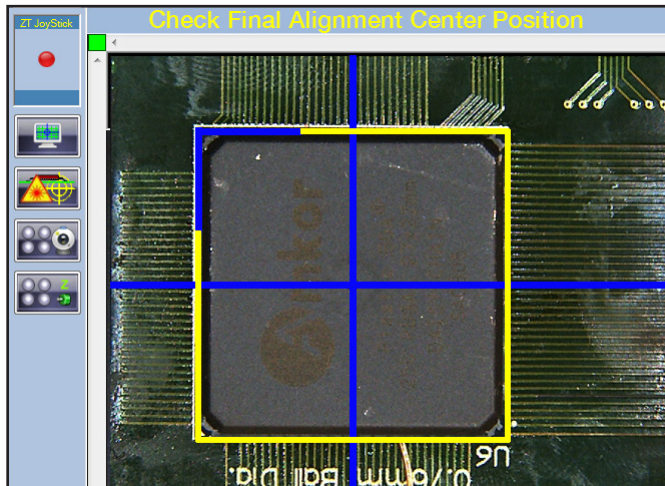
Actual (Scanned/On Machine) Board Image Background Simplifies and Positively Identifies Rework Sites.



Automatic Component Feature Recognition, Orientation Detection, and Precision Vision Alignment

Easy-To-Use Auto Profiling Software

- User-friendly, simple thermal profile development.
- Master templates for standard rework processes.
- Proprietary profile analysis software confirms successful profile development.
- Profile build automatically creates production, remove, site clean and solder processes after development.



Manual Checking Final Alignment Center Position of Component using Profile Tutor Software.

Repeatable Thermal Performance

- Mass flow controller (option) regulates precise heat flow (accuracy/linearity +/- 1% repeatability, .1% full scale).
- Heat temperature stabilization for hot/cold machine repeatability.

Robust Bottom Heater

- Radiant IR panel bottom heaters provide for high thermal uniformity.
- Board preheat is temperature-based via non-contact

IR temperature sensor or thermocouple.

- Automatic board cooling via high velocity air knife.
- Optional spot heater for localized bottom heating.

Automatic Non-Contact Site Cleaning

- Non-contact, composite vacuum tip (scavenging tool) safely removes residual solder. Eliminates damage to pads/solder mask caused by contact-based methods.
- X, Y, and Z tip movement is fully automated, no need for operator involvement.
- Micro and Ultra Micro site clean options safely clean sites down to individual 01005 size pads.
- Optional site clean cameras move with the nozzle to keep site in focus during the entire cleaning process.

Custom Nozzles for Any Surface Mount Component

- Standard nozzles for conventional components.
- Special nozzles for thermal control needs, joint temperature uniformity, limitation of heat to adjacent devices or sensitive areas and production concerns.

AVX1000 Options:

- Direct View Camera
- Site Cleaning Packages (Hardware & Site Clean Kits)
- Site Cleaning Cameras (Head Mounted)
- IR Board Temperature Sensor with Laser Pointer
- Adjustable X/Y Spot Heater, 3500 watts
- Universal Insertion Tool (6-47mm parts)
- Standard Application Plate (pick, dip, reject)
- Two-Pocket Automatic Nozzle Changer

AVX1000 Specifications:

- **Please visit our website at www.Air-Vac-Eng.com**



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