

YTV Series AOI

Automated PCB Inspection

- Quick Set-up
- High Speed
- High Defect Coverage
- Low False Failure Rate
- Best Price Performance

YESTech's advanced Thin Camera™ technology offers high-speed PCB inspection with exceptional defect coverage. With up to four top-down viewing cameras and four side viewing cameras, the YTV inspects solder joints and verifies correct part assembly enabling users to improve quality and increase throughput.

Programming the YTV is fast and intuitive. Operators typically take less than 45 minutes to create a complete inspection program including solder inspection. The YTV utilizes a standard package library to simplify training and insure program portability across manufacturing lines.

Newly available image processing technology integrates several techniques, including color, normalized correlation and rule-based algorithms, to provide complete inspection coverage with an extremely low false failure rate.

Configurable for all line positions, the YTV is equally effective for paste, pre / post-reflow or final assembly inspection. Off-line programming maximizes machine utilization and real-time SPC monitoring provides a valuable yield enhancement solution.



Automated Inspection for:

- Solder defects
- Lead defects
- Component presence and position
- Correct part / polarity
- Through-hole parts
- Paste

YTV 2000 Series Specifications

Models

YTV-2010	Multi-function system with top-down viewing camera
YTV-2050	Multi-function all purpose system with top-down and 4 side viewing cameras
YTV-2080	High speed advanced post reflow system with 8 cameras; 4 top and 4 side-viewing

Inspection Capabilities

Throughput:	10 sq. in./ sec. > 250,000 components per hour
Maximum Board Size:	22" x 20" (560mm x 510mm)
Clearance:	2" (50mm) top and bottom
Minimum Component Size:	0201; 01005 with high magnification option
Defects Detected:	Component: position, missing, wrong, polarity, skew, tombstone Lead: bent, lifted, bridging Solder: open, insufficient, short, solder balls

Software

Algorithms:	Normalized correlation, OCV, OCR, barcode recognition and rule-based
CAD Input:	Pick and place data, CAD x-y data
CAD Translation Package:	Excel, Circuitcam, Unicam, CIMBridge, Fabmaster
Programming Skill Level:	Technician or operator
Operating System:	Windows XP
Off-line Software:	Optional software for rework and off-line programming
Outputs:	Real-time SPC outputs reporting first pass yield, defect by classification, reference designator and part number with remote monitoring.

Hardware

Material Handling:	USB 2, SMEMA, dual direction auto width conveyor
Lighting:	LED top light, proprietary cold cathode fluorescent side light
Imager:	Multiple Thin Camera™ mega-pixel color cameras Resolution 1280 x 1024; 25 micron pixel size
Board Clamps:	Optional
High Magnification:	Optional 12 micron high magnification camera
Bottom Side Camera:	Optional for bottom side bar codes

Facilities

Power:	110VAC (220 optional) 50/60 Hz, 15 amps
Air input:	30 PSI min., 1/4 air hose
Footprint:	55" x 57" x 50" (1400mm x 1450mm x 1270mm)
Weight:	2,200 lbs (1000 kg)
Machine Installation:	< 1 hour



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