YES Tech
Yield Enhancement Solutions

YTV F1 Series AOI

A u t o m a t e d   P C B   I n s p e c t i o n

- 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 two top-down viewing cameras and four side viewing cameras, the F1-Series inspects solder joints and verifies correct part assembly enabling users to improve quality and increase throughput.

Programming the F1-Series is fast and intuitive. Operators typically take less than 30 minutes to create a complete inspection program including solder inspection. The F1-Series 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 F1-Series 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 F1 Series AOI Specifications

Models

YTV-F1   Multi-function system with top-down viewing camera

YTV-F1S   Multi-function all purpose system with single top-down and 4 side viewing cameras

Inspection Capabilities

Throughput:	Up to 5 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 Professional
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 bi-color multiangle LED lighting
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:	2,000 lbs (907 kg)
Machine Installation:	< 1 hour

YESTech Inc.