

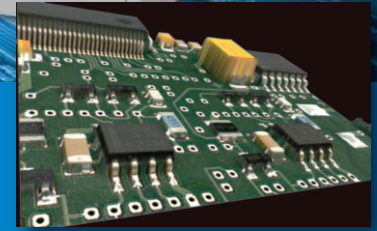
AOI solutions you
can count on.

The Ultimate in 3D Inspection!



FX-940 ULTRA 3D AOI

In-line PCB inspection



Nordson YESTECH's advanced 3D imaging technology offers high-speed PCB inspection with exceptional defect coverage. With one top down viewing camera, four side viewing cameras and 2D + 3D inspection, the FX-940 ULTRA inspects solder joints and verifies correct part assembly enabling users to improve quality and increase throughput.

Programming the FX-940 ULTRA is fast and intuitive. Operators typically take less than 30 minutes to create a complete inspection program including solder and lead inspections. The FX-940 ULTRA utilizes a standard package library to simplify training and ensure program portability across manufacturing lines.

Advanced LED lighting and newly available image processing technology integrates several techniques, including 3D metrology, color inspection, normalized correlation and rule-based algorithms, to provide complete inspection coverage with an unmatched low false failure rate.

Configurable for all line positions, the FX-940 ULTRA is equally effective for paste, pre / post-reflow and final assembly inspection. Off-line programming maximizes machine utilization and real-time SPC monitoring provides a valuable yield enhancement solution.

Features:

- 5 axis 3D NYTVISION Technology
- Advanced 2D + 3D inspection
- Multi-fringe digital projection
- 1 top-down and 4 side viewing cameras
- Automatic Z Focus
- Automatic programming tools: < 30 minutes
- SPI Module
- High defect coverage / low false failure
- SPC data collection & reporting
- Optional Ultra high-resolution 3D sensor

Automated 3D Inspection for:

- Co-planarity of chips, BGAs and other height sensitive devices
- Solder defects / paste
- Lead defects / lifted leads
- Component presence and position
- Correct part / polarity
- Through-hole parts

FX-940 ULTRA 3D AOI In-line PCB inspection

Specifications

Model

FX-940 ULTRA 3D

Multi-function system with top-down viewing,
4 side viewing cameras
2D + 3D Inspections

Specifications

Throughput: 130 cm² / sec (2D) - 60 cm² / sec (3D)
Maximum Board Size: 27.5" x 22" / 698mm (x) x 559mm (y)
Maximum Inspection Area: 22.5" x 18.5" / 571mm (x) x 470mm (y)
Clearance: 50mm top / 100mm bottom
Minimum Component Size: 008004 with high magnification sensor option
False Calls: <500 PPM (<0.05% typical)
Defects Detected: Part: shifted, missing, wrong, polarity, skew
tombstone, HiP, tilt, flip, billboard
Lead: bent, lifted, bridging
Solder: open, insufficient, short, solder balls
Other: FOD, SPI

Software

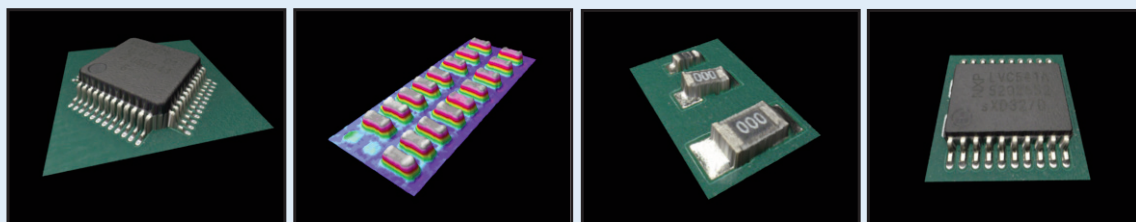
Algorithms: 3D body (x,y,z, theta, tilt), 3D solder profile, part, height,
part coplanarity, 3D lead inspection, color, OCR, OCV
barcode (1D & 2D), histogram, blob analysis, edge detection
Data Requirements: ASCII Text, X-Y position, part #, ref. #, polarity
CAD Translation Package: Aegis, Unicam, Fabmaster, YESTECH CAD Utility
Off-line Software: Optional - Rework, Review and Program Creation
SPC Software: Optional - Real-time local and remote monitoring of first
pass yield, defect trends and machine utilization.
Data Outputs: Text, SQL, ODBC, MS Access

Hardware

Material Handling: SMEMA, dual direction auto width conveyor,
pass / fail signals, board clamping
Lighting: Multi-axis 4 phase LED
Conveyor: Dual lane conveyor, heavy duty chain conveyor,
large board option up to 1.5m

Facilities

Power: 110-220VAC, 50/60 Hz, 15 amps
Air input: 60 PSI min., 1/4" air hose, 2 CFM
Footprint: 39" x 52" x 60" (1000mm x 1329mm x 1531mm)
Weight: 950 lbs (430 kg)



Nordson YESTECH

USA Headquarters:
2747 Loker Ave. West
Carlsbad, CA USA 92010
+1.760.918.8471 **Phone**
sales@nordsonyestech.com

China:
#137 Guoshoujing Road
Zhangjiang Hi-Tech Park
Pudong,
Shanghai 201203, P.R.China
+86 21 3866 9166 **Phone**

Southeast Asia:
2 Corporation Road
#03-11/12
Corporation Place 618494
Singapore
+65 6749 0538 **Phone**

Europe:
25 Faraday Road
Aylesbury
Buckinghamshire
HP19 8RY, UK
+44 (0) 1962 832654 **Phone**

Japan:
TOC Ariake Building West
Tower 17F
3-5-7 Koto-ku Ariake
Tokyo, 135-0063, Japan
+81 3 5762 2801 **Phone**

