

AOI & X-Ray solutions  
you can count on.



## FX Series AOI

Full size in-line PCB inspection

Nordson YESTECH's advanced 5 megapixel color camera imaging technology offers high-speed PCB inspection with exceptional defect coverage. With one top down viewing camera and four side viewing cameras, the FX Series inspects solder joints and verifies correct part assembly enabling users to improve quality and increase throughput.

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

Advanced Fusion Lighting™ and newly available 5 megapixel image processing technology integrates several techniques, including color inspection, normalized correlation and rule-based algorithms, to provide complete inspection coverage with an extremely low false failure rate.

Configurable for all line positions, the FX Series 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 megapixel color imaging
- 1 top-down and 4 side angle cameras
- Quick set-up
- High speed
- High defect coverage
- Low false failure rate

### Automated Inspection for:

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

# FX Series AOI Full size in-line PCB inspection

## Specifications

### Model

**FX** Multi-function system with top-down viewing,  
5 megapixel camera

Optional Upgrade: 4 side angle cameras

### Specifications

Throughput: Up to 10 sq. in./sec. > 500,000 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

False Calls: <500 PPM (<0.05% typical)

Defects Detected: Part: position, missing, wrong, polarity,  
skew, tombstone

Lead: bent, lifted, bridging

Solder: open, insufficient, short, solder balls

### Software

Algorithms: Color, OCV, OCR, barcode recognition, both image and  
rule-based algorithms

Data Requirements: ASCII Text, X-Y position, part #, ref. #, polarity

CAD Translation Package: Aegis, Unicam, Fabmaster, YESTECH CAD Utility

Programming Skill Level: Technician or operator

Operating System: Windows XP Professional

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: Proprietary Fusion Lighting™ multiangle LED

Imager: 5 megapixel color camera

Resolution 2448 x 2048; 25, 12 or 8 micron pixel size

### Options

Conveyor: Multiple lane conveyor, heavy duty conveyor

Large Board Option: Optional 34" x 20" (865mm x 510mm)

Bottom Side Camera: Optional for bottom side bar codes

Board Supports: Bottom side

### Facilities

Power: 110VAC (220 optional) 50/60 Hz, 15 amps

Air input: 30 PSI min., 1/4 air hose, 2 CFM

Footprint: 55" x 57" x 50" (1400mm x 1450mm x 1270mm)

Weight: 1,850 lbs (840 kg)

Machine Installation: < 1 hour

**Nordson YESTECH**  
USA Headquarters  
2762 Loker Ave. West  
Carlsbad, CA USA 92010

+1.760.918.8471 **Phone**  
+1.760.918.8472 **Fax**  
www.nordsonyestech.com

### Nordson YESTECH

USA Headquarters:  
2762 Loker Ave. West  
Carlsbad, CA USA 92010  
+1.760.918.8471 **Phone**  
+1.760.918.8472 **Fax**

Asia:  
#137 Guoshoujing Road  
Zhangjiang Hi-Tech Park  
Pudong,  
Shanghai 201203, P.R.China  
+86.21.3866.9166 **Phone**  
+86.21.3866.9199 **Fax**

Europe:  
Bergerstraat 8  
6226 BD Maastricht  
The Netherlands  
+31.352.4466 **Phone**  
+31.352.7722 **Fax**

UK  
Charwell House  
Wilsom Road, Alton  
Hampshire, UK GU34 2PP  
+44 (0) 1420 540254 **Phone**  
+44 (0) 1420 544098 **Fax**

