AOI & SPI solutions
you can count on.

The Ultimate in
3D Inspection!

FX-500 ULTRA 3D SPI

In-line 3D Solder Paste Inspection System

Nordson YESTECH's FX-500 ULTRA 3D SPI provides 3-D height, volume and area metrology for PCB boards with complex and small pad sizes where solder volume definition is critical for joint reliability.

The new special warp compensation algorithm allows high speed compensation for warp on complex shapes contained within a field of view. The new improved ultrafast 3D sensor combined with a unique 'all-in-one' scan technique - that integrates fiducial, barcode and range scans into one, seamless scan sequence - makes the FX-500 ULTRA 3D SPI one of the fastest systems in the market.

The use of high speed "on the fly" inspection allows to minimize vibrations effects delivering greater accuracy and best in class repeatability.

Complementing Nordson's line of optical and X-ray inspection systems, the FX-500 addresses industry 4.0 requirements and provides a valuable link to other Nordson Test and Inspection platforms.

Features:

- High Accuracy at Fastest Speed
- Full "on the fly" 3D solder paste metrology
- Feedback, Feed Forward Ready (I 4.0)
- Proprietary strobe lighting
- Built in barcode reading for traceability
- Intuitive software with touch screen programming

Automated 3D Inspection for:

- Solder Paste Area coverage
- Solder Paste Volume
- Solder Paste Registration
- Solder Paste Bridge Detection
- Automated Defect Review
- SPC, barcode reading and archiving of board image with inspection results

Nordson
YESTECH

FX-500 ULTRA 3D SPI In-line 3D Solder Paste Inspection System

Specifications

Model	
FX-500 ULTRA 3D SPI	Solder Paste Inspection
Optional Upgrades:	SPC software, Barcode Readers (1D/2D), Programming Software: ePM-SPI/AOI & GC-PowerPlace, Offline Defect Review, Certification Target
Specifications	
Throughput:	Up to 210 cm²/sec (32.5 in²/sec)
Maximum Board Size:	20.0 x 19.8 in. (508 x 503 mm)
Height Resolution:	0.2 µm (0.008 mils)
Field-of-View (FOV):	1.26 x 1.26 in. (32 x 32 mm)
X and Y Pixel Size:	High Resolution: 15 µm (0.6 mils); High Speed: 30 µm (1.2 mils)
Paste Height Range:	50 - 500 µm (2 - 20 mils)
Measurement Types:	Height, Area, Volume, Registration, Bridge Detection, Defect Review
Software	
Algorithms:	3D solder paste Flexible circuit warp compensation algorithm
Programming Skill Level:	Technician or operator
Operating System:	Windows 7
SPC Software:	Teach, Inspection, Defect Review and Real-time SPC
Hardware	
Machine Interface:	SMEMA, RS232 & Ethernet
Height Accuracy:	2 µm on a Certification Target Gage R&R: <<10%, 6 σ
Conveyor Speed Range:	150-450mm/sec. (5.9 - 17.7 in./sec
Conveyor Adjustment:	Automatic
Facilities	
Power:	100 - 130 / 220 - 240V (10%), 50/60 Hz, 10 - 15 amps
Air input:	5.6 to 7.0 Kgf/cm² (80 to 100 psi @ 4 cfm)
Footprint:	39” x 52” x 60” (110 x 127 x 139 cm)
Weight:	~ 855 kg (1885 lbs.)
Machine Installation:	< 1 hour

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