



SE3000S 3D SPI

Optical Inspection & Metrology

www.nordson.com/TestInspect


Test & Inspection

Nordson Test & Inspection

Founded in 1954, Nordson Corporation is a market leading industrial technology company with annual revenues of over \$2.1 billion and more than 7,500 employees worldwide.

Nordson Test & Inspection offers its SMT & Semiconductor customers a robust product portfolio, including Acoustic, Optical and both Manual and Automated X-ray Inspection systems, X-ray Component Counting systems and Semiconductor measurement sensors. Nordson Test & Inspection is uniquely positioned to serve its customers with best-in-class precision technologies, passionate sales and support teams, global reach, and unmatched consultative applications expertise.

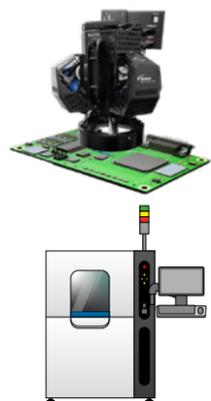


Exceptional support
from Nordson's worldwide network

AOI Products

Proprietary Advanced Technology

Optical Inspection & Metrology



WS Products

Improve Your Yields

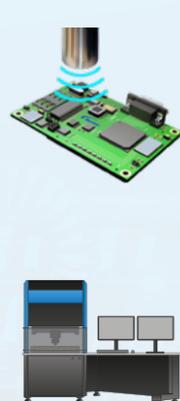
Semiconductor Metrology Sensors



AMI Products

Qualify Your Design

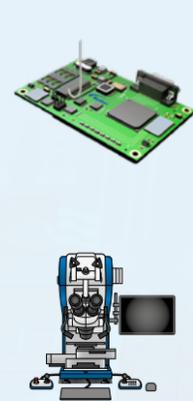
Acoustic Inspection



BT Products

Test Your Design

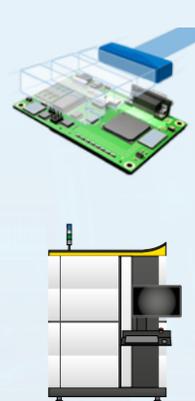
Bondtesters



AXI Products

High Speed High Flexibility

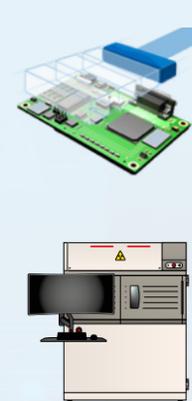
Automated X-ray Inspection



MXI Products

Making the Invisible, Visible

Manual X-ray Inspection



AXM Products

Measuring the Invisible

Automated X-ray Metrology



CC Products

Maximize Efficiency

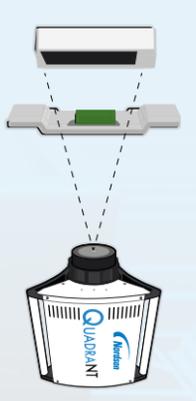
X-ray Component Counting



XT Products

High Speed High Resolution

X-ray Technologies



A Leap Forward in SPI

The new SE3000S™ 3D SPI system incorporates the industry leading MRS sensor technology with a finer resolution for the best accuracy, repeatability and reproducibility - even on the smallest paste deposits.



Shorter Inspection Times



Unmatched Accuracy and Resolution with MRS Technology



Versatility for Applications with High Quality Requirements

Speed, accuracy and resolution

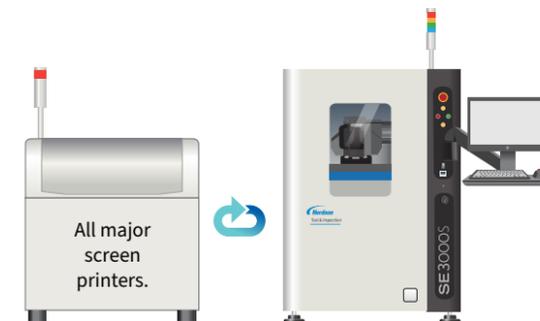
Combined with the award winning, easy-to-use SPI software, solder paste inspection has a new level of precision for the most stringent requirements. Large Board capability with SE3000S-X is also available.



MRS® Technology for 3D SPI

Nordson Test & Inspection's unique sensor architecture with 4 multi-view 3D sensors and a parallel projector, simultaneously captures and transmits multiple images in parallel while proprietary 3D fusing algorithms merge the images together, delivering metrology grade accuracy at production speed.

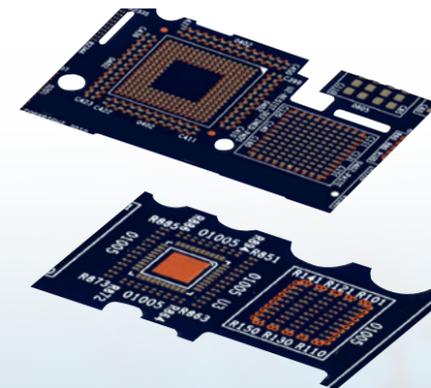
Feedback, Feed Forward Ready



SE3000S fully supports feedback and feed forward capability with leading Solder Paste Printer and SMT Mounter vendors respectively. With simple configuration settings, SE3000S gives you the power to do more with SPI results - optimize printing process, establish stencil cleaning cycles and fine-tune printer setup. All this means reduced rework costs, increased production throughput and improved yields.

Superior Inspection Capabilities

Ideal for measuring height, area, volume, registration and bridging. Effectively detects insufficient paste, insufficient height, insufficient area, excessive paste, excessive height, smear, offset, shape height, deposit and customer defect types.

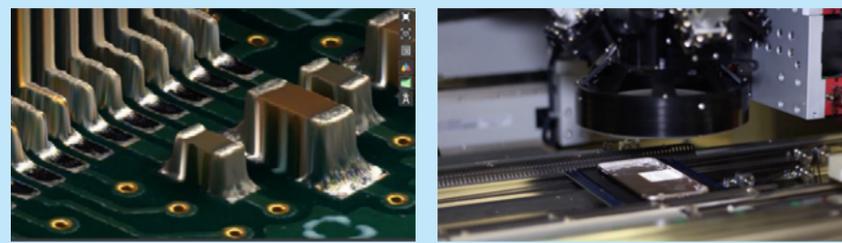


Multi-Reflection Suppression® (MRS®) Sensor Technology

The SE3000S offers unmatched accuracy with the revolutionary Multi-Reflection Suppression® (MRS®) technology by meticulously identifying and rejecting reflections caused by shiny components.

Reflection based distortions

MRS is designed to Inhibit reflection-based distortions from shiny and specular surfaces.



Enabling the highest possible inspection accuracy at production speeds.



Effective suppression of multiple reflections is critical for highly accurate measurement.

The Dual-Mode MRS PSX 189 Sensor for SPI provides the flexibility to use one mode for high speed inspection and another mode for high resolution inspection - all with one sensor.

DUAL-MODE MRS PSX 189 SENSOR FOR SPI

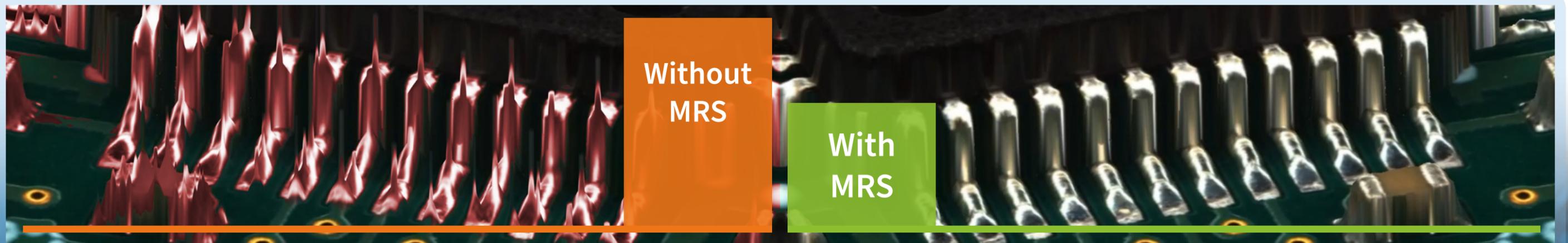
High Resolution

High Speed



Without MRS

With MRS



Award-Winning Intuitive Software

Nordson's SPI software delivers a world-class user experience with its intuitive interface that is extremely stable and simple to use, enabling the shortest learning curve.

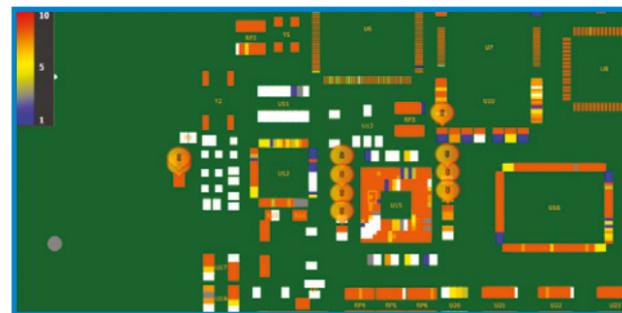
With a full multi-touch experience, SPI software offers a range of features that enable smarter and faster inspection.



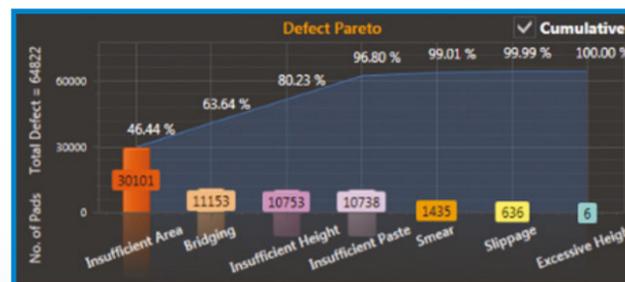
Defect Review Interface.

Features Include

- Seamless integration of all applications - Teach, Inspection, Defect Review and Real-time SPC.
- Unlimited undo-redo and global search options in Teach.
- Loads of smart, informative and relevant charts that provide yield summary, FPY information, hotspot display, top 10 pad failures, historical panel and more.
- Easy, hassle-free operation using multi touch, multi-selection, pinchzoom, and pan-move options.



Hot Spot Display.



Real-time SPC.

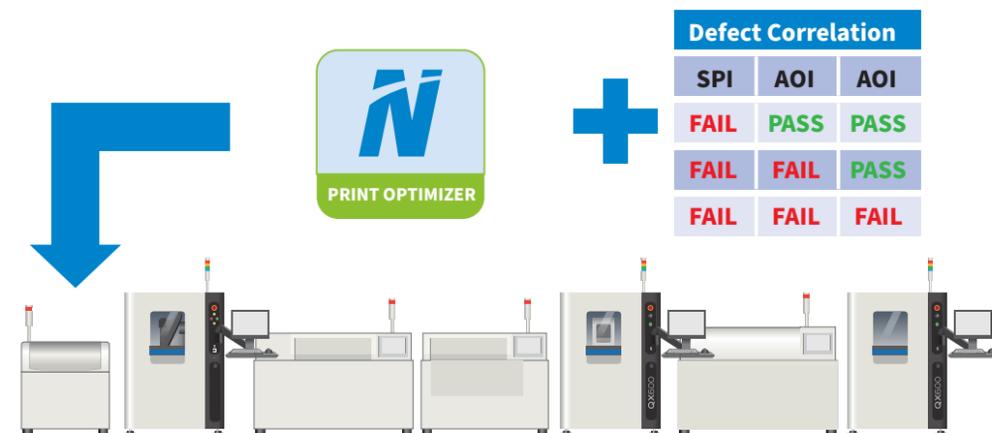
Nordson Print OPTIMIZER Ready

Nordson Print OPTIMIZER automatically optimizes the print process by proactively analyzing accurate trend data - first-ever in the industry!

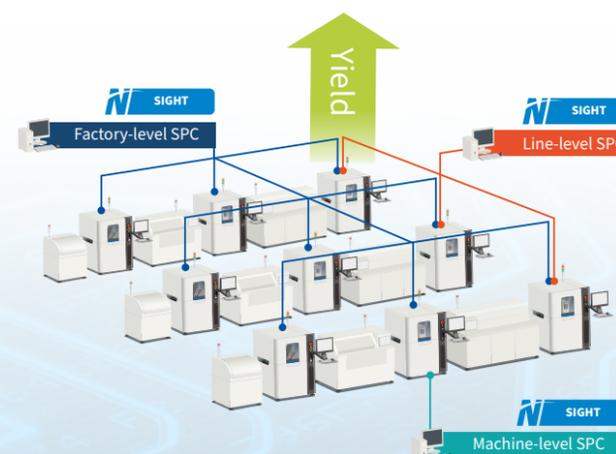
PRINT OPTIMIZER

Pre-defined templates help you get started quickly while customizable rules support perfect customization for specific product needs.

The predictive process improvement gets you better yields and reduces downtime. Failure analysis drives line optimization and auto tolerance changes.



SIGHT



Nordson Sight - Fast, scalable SPC software solution

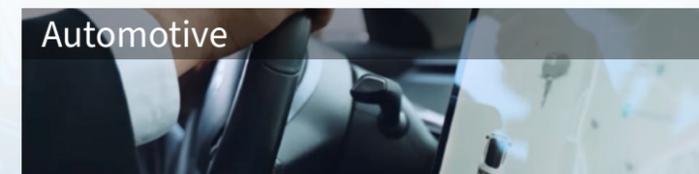
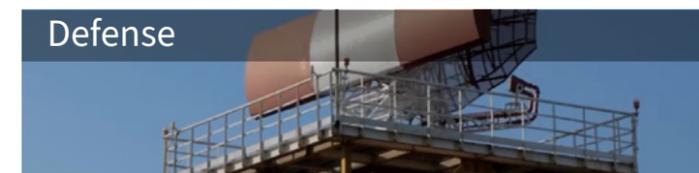
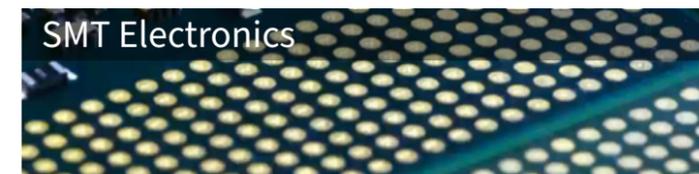
Nordson Sight offers full-fledged machine to factory level SPC capability with powerful historical analysis and reporting tools. The software delivers complete traceability for effective process verification and yield improvement.

Nordson Sight is designed for simple set-up and intuitive use, while simultaneously delivering scalability, fast charting, and an extremely compact database size.

High End Applications

The SE3000S offers unmatched accuracy with the revolutionary Multi-Reflection Suppression (MRS) technology. Effective suppression of multiple reflections is critical for accurate measurement, making MRS an ideal technology solution for a wide range of applications including those with very high quality requirements.

The SE3000S inspection and measurement capabilities include:



Specifications

System Configuration	SE3000S-DR	SQ3000S-HS
Nordson Part Number	6283906	
Inspection Sensor	Dual Resolution PSX 189	
Inspection Capabilities		
Resolution Mode	9 µm	18 µm
Inspection Speed	16 cm ² /sec	46 cm ² /sec
Minimum Paste Size	100 x 100 µm (3.9 x 3.9 mil)	200 x 200 µm (7.8 x 7.8 mil)
Maximum Paste Size	15 x 15 mm (0.59 x 0.59 in.)	30 x 30 mm (1.18 x 1.18 in.)
Height Measurement Range	2 mm (0.07 in.)	3 mm (0.12 in.)
Height Accuracy	2 µm on a Certification Target	
Measurement Gage R&R	< 10%	
Measurement Types	Height, Area, Volume, Registration, Bridge Detection	
Defect Category	Bridging, Insufficient Paste, Insufficient Height, Insufficient Area, Excessive Paste, Excessive Height, Smear, Offset, Shape Δ Height, Deposit, and more defect types	
Function Capability	Closed-loop to printer, CyberPrint, inline SPC tool	
Vision System		
Panel Minimum Size	50 x 50 mm (2 x 2 in.)	
Panel Maximum Size	510 x 510 mm (20 x 20 in.)	
Panel Maximum Inspection Area	508 x 503 mm (20 x 19.8 in.)	
Field-of-View (FOV)	22 x 18 mm (0.86 x 0.70 in.)	36 x 36 mm (1.42 x 1.42 in.)
Component Height Clearance	Top: 50 mm (1.97 in.); Bottom: 30 mm (1.97 in.)	
Panel Edge Clearance	Top: 2.5 mm (0.10 in.); Bottom: 3 mm (0.12 in.)	
Panel Thickness	0.3 to 5.0 mm (0.01 in. to 0.2 in.)	
Maximum Weight	3 kg / 5 kg (Option)	
Conveyor Width Adjustment	Automatic	
Conveyor Direction	Left to Right (Standard); Right to Left (Option)	
System Specifications		
Machine Interface	SMEMA, RS232 and Ethernet	
Power Requirements	100-120 VAC or 220-240 VAC, 50/60 hz, 10-15 amps	
Compressed Air Requirements	5.6 Kg/cm ² to 7.0 Kg/cm ² (80 to 100 psi @ 4 cfm)	
System Dimensions	110 x 129 x 139 cm (W x D x H)	
Weight	900 kg (2127 lbs.)	
Options		
	SPC software, Barcode Readers (1D/2D), Programming Software: ePM-SPI/AOI, Offline Defect Review, Certification Target	

For more information, speak with your Nordson representative or contact your Nordson regional office

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