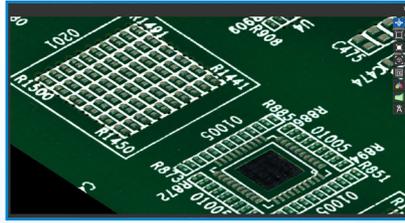
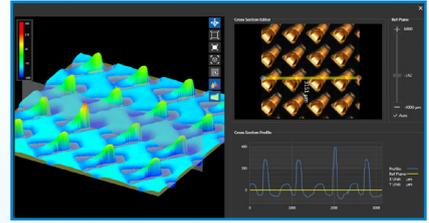




Automated Optical Inspection (AOI)



Solder Paste Inspection (SPI)



Coordinate Measurement (CMM)



AOI

SQ3000S



Multi Function 3D AOI, SPI & CMM

The Ultimate in Speed and Accuracy with Multi-Process Capability.

SQ3000S is an all-in-one solution that's loaded with powerful tools that cover inspection and measurement for AOI, SPI and CMM applications.

The SQ3000S offers unmatched accuracy with the revolutionary Multi-Reflection Suppression® (MRS®) technology by meticulously identifying and rejecting reflections caused by shiny components. 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.

www.nordson.com/TestInspect



Metrology-Grade Accuracy

- At production speed enabled by MRS technology.
- Attain repeatable and reproducible measurements for SMT, semiconductor, microelectronics and metrology applications.

Faster, Smarter, Software

- Ultra-fast programming capabilities, auto tuning and enhancements that significantly speed setup, simplify the process, reduce training efforts and minimize operator interaction.
- Take ease-of-use to a whole new level of inspection with multi touch controls and 3D

image visualization tools with Nordson Test & Inspection's 3D AOI software that includes full SPI capability, and expanded coordinate measuring capabilities with Nordson CMM.

- Add on Nordson Sight for full-fledged machine-level to factory-level SPC capability.

Richer SPI Experience

- Optimize printing process by proactively analyzing current trend data with the standalone SPI software and Nordson Print Optimizer.
- Enable smarter and faster inspection that provides reduction in rework costs, minimizes scrap and optimizes print process.

System Configuration	SQ3000S-S	SQ3000S-HS	SQ3000S-RS	SQ3000S-HR
Nordson Part Number	6283904	6283902	6283903	6283901
Inspection Sensor	MRS-PSX300	MRS-PSX350	MRS-PSX330	MRS-PSX325
Inspection Capabilities				
Inspection Speed	43 cm ² /sec	52 cm ² /sec	27 cm ² /sec	17 cm ² /sec
Board Edge Clearance	Top: 2.5 mm (0.10 in.); Bottom: 3 mm (0.12 in.)			
PCB Thickness	0.3 to 5.0 mm (0.01 in. to 0.2 inc)			
Component Types Inspected	Standard SMT (chips, J-lead, gull-wing, etc.), Integrated circuits (SOIC, QFN, QFP, BGA), through-hole, odd-form, clips, connectors, header pins, LED, IPC Compliant, and more			
Component Defects	Missing, polarity, alignment, tombstone, billboard, flipped, wrong part, gross body and lead damage, and more			
Solder Joint and Other Defects	Gold finger contamination, excess solder, insufficient solder, solder volume, solder height, missing solder, bridging, through-hole pins & more			
3D Measurement Inspection	Lifted Lead, package coplanarity, polarity dimple and chamfer identification, engraving depth, gap uniformity, & more			
Measurement Gage R&R	<10% @ ±3σ (±80 μm process tolerance)			
Z Height Accuracy	1 μm on certification target			
Z Measurement Range	6 mm at spec, 24 mm capability		3 mm at spec, 8 mm capability	
CMM Capabilities				
Coordinate Measurement Capability	Line / Distance / X,Y / Mid Line, Inter Point / Regression Shifted, Datum X,Y / LSF X,Y Offset, X,Y Offset / Value / Location / List of X,Y Values, Height / Local Height / Regression / Radius, Coplanarity/ Distance to plane / 2nd Order fitting, Difference / Absolute / 2sqrt / VC, Max / Min / Ave / Sigma / Plus / Minus / Multiple			
Advantage	Faster speed compared to a typical CMM machine. Single setup for inspection and CMM result			
Accuracy XY / Z	6 μm / 2 μm		5 μm / 2 μm	
Resolution XY / Z	10 μm / 0.5 μm		7 μm / 0.5 μm	
Maximum Weight	3 kg / 5 kg (Option)			
Min./ Max. Feature Height	Min. 50 μm ; Max. 24mm		Min. 50 μm ; Max. 8mm	
Vision System & AI Capabilities				
Imagers	Multi-3D sensors			
Resolution	Sub 10 μm		Sub 7 μm	
Field of View (FOV)	36 x 30 mm	36 x 36 mm	26 x 26 mm	21 x 21 mm
Maximum Inspection Area	508 x 503 mm (20 x 19.8 in.)			
Image Processing	Autonomous Image Interpretation (AI ²) Technology, Coplanarity and Lead Measurement			
Nordson Intelligence	Network Based Algorithm Models, Automatic PCB Segmentation, Auto Programming, Anomaly Detection, Auto Defect Classification & more			
CAD Import	Any column-separated text file (.txt) or comma-separated value file (.csv) with ref designator, XY, Angle, Part no info; Valor process preparation			
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 Kgf/cm ² to 7.0 Kgf/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				
	Barcode Reader, Offline Rework Station, SPC Software, Alignment Target, Programming Software: ePM-SPI/AOI			

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

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