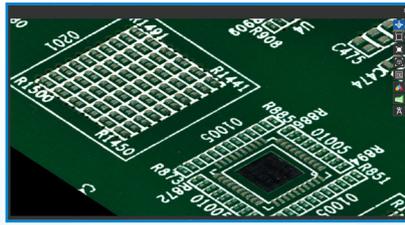
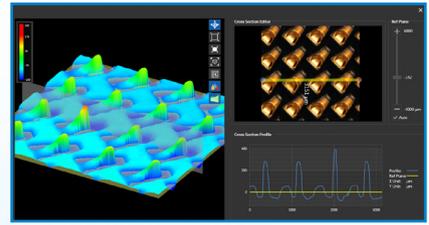


Automated Optical Inspection (AOI)



Solder Paste Inspection (SPI)



Coordinate Measurement (CMM)



AOI

NEW
High Speed
High Resolution
MRS Sensors

SQ5000Pro



Multi Function 3D AOI, SPI & CMM

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

SQ5000Pro is an all-in-one solution that's loaded with powerful tools that cover inspection and measurement for AOI, SPI and CMM applications.

The SQ5000Pro 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.

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	SQ5000Pro-HS	SQ5000Pro-HR
Nordson Part Number	6283699	6283700
Inspection Sensor	MRS-PSX550	MRS-PSX536
Inspection Capabilities		
Minimum Component Size	0402 mm (01005 in.)	0201 mm (008004 in.)
PCB Size	Minimum: 50 x 50 mm (2 x 2 in.); Maximum: 510 x 510 mm (20 x 20 in.)	
Component Height Clearance	50 mm	
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 / XY / Mid Line, Inter Point / Regression Shifted, Datum XY / LSF XY Offset, XY 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	
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 & Technology		
Imagers	Multi-3D sensors	
Resolution	Sub 10 μm	Sub 7 μm
Field of View (FOV)	50 x 50 mm	36 x 36 mm
Maximum Inspection Area	508 x 503 mm (20 x 19.8 in.)	
Image Processing	Autonomous Image Interpretation (AI2) Technology, Coplanarity and Lead Measurement	
Nordson Intelligence	Network Based Algorithm Models, Automatic PCB Segmentation, Auto Programming, Anomaly Detection, Auto Defect Classification and more	
VOD (Video On Demand)	Yes	
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	SMEFA, 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	107 x 129 x 145 cm (W x D x H)	
Weight	965 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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