AutoScan™

High-speed automated inspection tool

Based on the proven Solarius technology, this reliable metrology system is ideal for highly precise and automated measurement of larger surfaces or groups of parts.

The AutoScan inspection system was especially designed for production level quality assurance. The system features linear motor based precision stages for robust, fast, non-destructive surface measurement. The AutoScan can be equipped with two different sensors depending on the measurement requirements.

The platform is highly configurable to meet specific measurement tasks. Using Solarius designed customization tools the look and feel of the user interface can be modified to customer specific requirements. This allows for a single screen operation to initiate preprogrammed measurement sequences as well as viewing results incorporating pass fail analysis.

- **High precision**
- **Suited for various measurement tasks**
- **Automated measurement routines**
- **Non-contact and non-destructive**

Customer Applications:

Automotive: Verifying geometry of fuel injection valves and flatness on fuel cell components.

Semiconductor Packaging: Measuring flatness/warpage of heat sinks and other critical surface mount devices.

Medical Devices: Establishing surface finish and geometry of surgical implants.

Optics: Determining radius of curvature and thickness of lenses.

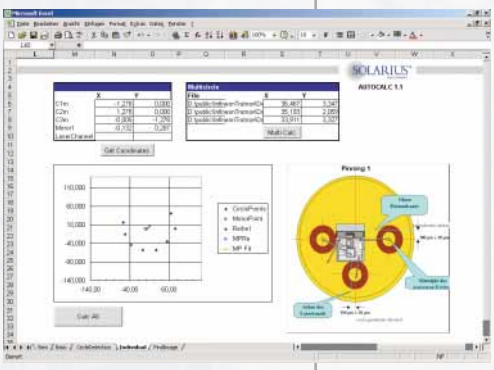
Metal Finish: Providing Go/No-Go decisions based on surface wear analysis.

SOLARIUS™ DEVELOPMENT

AutoScan™

Software

With its unique software based on a Microsoft ActiveX® interface, the AutoScan represents a flexible and reliable system for quality assurance. Statistical analysis and process control are part of a single application that is integrated into a VB/ActiveX® environment. This makes the AutoScan a specialized, customizable metrology tool for monitoring important production steps.

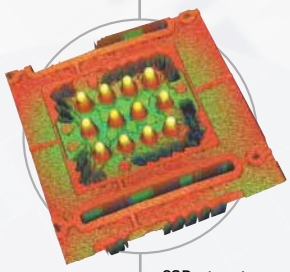


Automated measurement and analysis routines

Sensor

The AutoScan is modular in design and ideally suited for quality assurance and process control. It comes with the option of two laser point sensors.

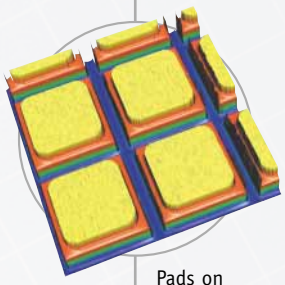
SENSOR	LT8010	LT8110
Measuring range [mm]	0.6	2
Vertical resolution [µm]	0.1	0.2
Spot size [µm]	2	7
Stand-off [mm]	5	28
Measuring frequency [Hz]	1,400	1,400
Linearity of F.S. [%]	± 0.5	± 0.3
Camera	on-axis integrated	on-axis integrated



CSP structures

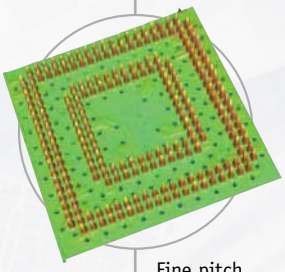
System Specifications

The AutoScan utilizes an interchangeable sensor module, which is mounted on a solid platform. The sample is positioned on highly precise computer controlled x-y stages. Table size and bridge height can be adapted individually to suit the sample size and measurement task. Included in the system is an integrated electronic control with the latest CPU, motion control and Windows 2000® operating system.



Pads on large printed circuit board

STAGES	A350	A600
Measurable area [mm]	350x350	600x600
Resolution [µm]	0.5	0.5
Flatness [µm/mm]	± 1/25	± 1/25
Repeatability [µm]	0.5	0.5



Fine pitch solder paste

All specifications subject to change without notice.

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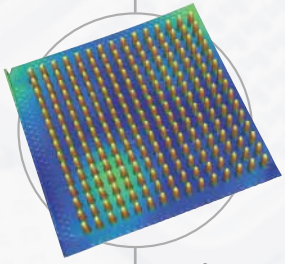

BGA for micro packaging

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