



# Paragon™

**Intelligent Bond Testing Software**

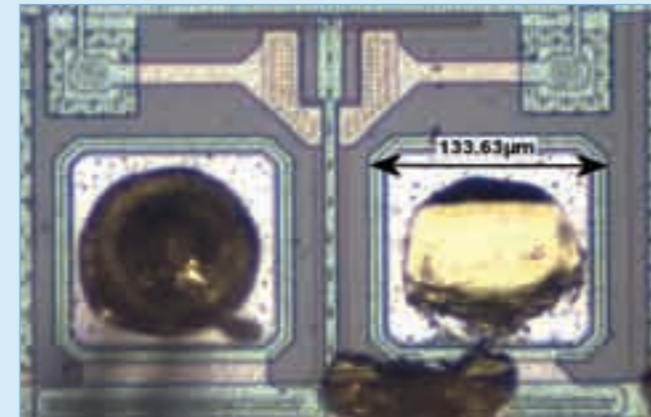
Nordson DAGE's next generation bond testing software Paragon™, takes bond testing to the next level. Its highly intuitive and configurable interface provides quick and easy access to advanced functionality, increasing efficiency and providing 100% confidence in your bond testing results.

### High Accuracy and Repeatability

#### Intelligent System Monitoring

All aspects of the system are regularly monitored including life tests on the tool, load cartridge and calibration jig, health checks, calibration status and cartridge initialization. These checks, with automatic alerts, maximize uptime and provide confidence in your test data and ultimately your product quality.

System information provided by Paragon's built-in diagnostics is delivered via dialogue boxes using clear and simple instructions. This approach enables operators to quickly resolve any issues.



Field of view as seen through the image capture system

#### Image Capture for Advanced Analysis

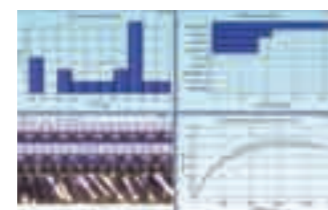
Facilitates failure mode designation with the rapid acquisition of relevant images and measurement at different magnifications for further analysis.

# Paragon™ Intelligent Bond Testing Software



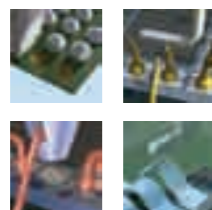
#### Quick and Easy Test Set-Up

Intuitive design ensures test set-up parameters are easily accessible with the start-up checklist enabling a quick start



#### Advanced Data Presentation

Extensive charting functionality allows several graphs to be displayed at once and to resize and zoom in easily



#### Consistency Guaranteed

Advanced failure mode grading assists with accurate and quick grading while the automatic GR&R calculator ensures accurate pre-shipment acceptance testing by determining the bondtester's level of repeatability and reproducibility



# Power with Simplicity

## Intuitive Interface

The highly intuitive interface comprises of three main tabs providing quick access to where you need to be:

- Testing
- Analysis
- Machine



The customizable toolbar contains the most commonly used function buttons in one location ensuring that nothing is more than just a few clicks away

## Flexible Analysis and Reporting

### Data Analysis

Paragon provides an incredibly flexible analysis suite suitable for the most demanding of applications including:

- On-board statistics and Statistical Process Control (SPC) package complete with histogram distribution curves (mean and current samples)
- Force trend analysis (with box whisker and optional mini histogram on the same chart)
- Grade pareto
- Loop height trend analysis
- Force/time displacement curves

All combined with a powerful statistical results display, for mean, maximum and minimum range, standard deviation, mean - 3s, Cpk and Cp.

### Data Manipulation

Data can be manipulated in a number of ways:

- ODBC compatibility (locally or via a network link)
- RS232 including a fixed field option
- CSV file format availability
- Copy results to the clip board to paste directly into Microsoft Excel or save direct to Excel or Word

### Third Party Statistical Process Control (SPC)

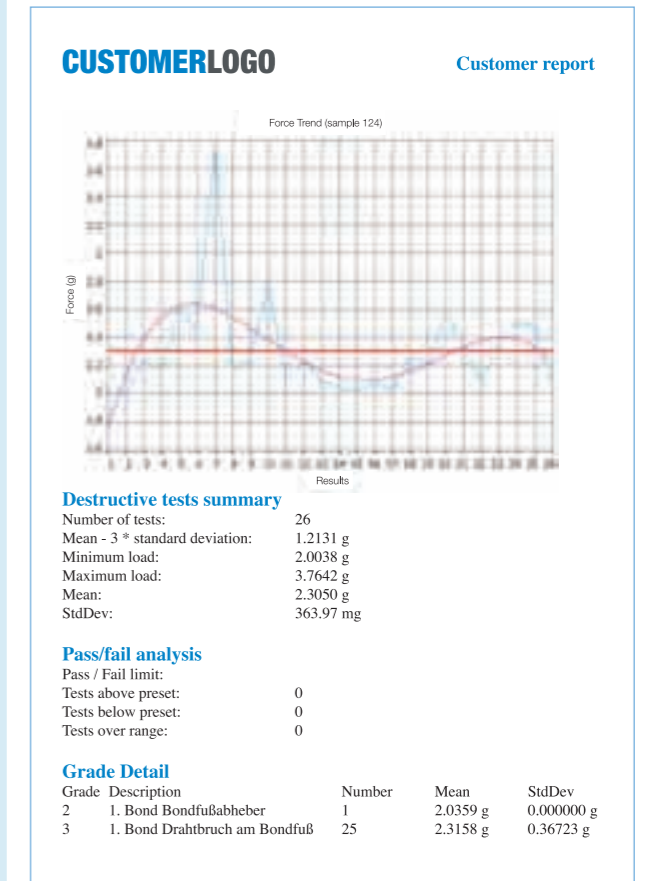
Paragon can be configured to output results into industry leading SPC packages. These packages are directly available from, and supported by, the manufacturer.

### Graphing

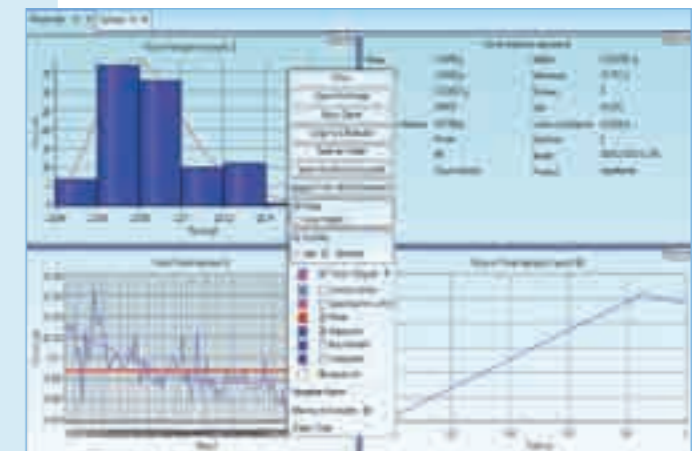
Data is easy to manipulate using the unique interactive graphing tool. Fields, including the title and legends, can be edited, and several graphs can be displayed at one time which the operator can easily zoom in and resize.

### Exporting Results

Test results can be saved directly to Microsoft® Excel and Word as well as Adobe® Acrobat, while graphs can be exported in common picture formats, such as .jpg, .tif and .bmp.



Reports can be customized and personalized with a logo



Graphing tool

# Efficient Testing

## Test Automation

The testing of a complete row of bonds on one device/lead frame or several devices in a hybrid package is a simple process with Paragon.

When testing a row of bonds on one device the operator can pre-program the amount of test points (bonds) with their positions and the pitch to automatically test every bond in the row. This process is simply repeated for each new device being tested.

With several devices with different applications in a hybrid package the system automatically moves from device to device and will advise the operator when to change the load cartridge for each application. The test patterns are stored with images enabling the operator to select a test pattern based on an image of the device.

## Powerful Database

The Paragon software database has been designed around Microsoft® SQL Server to provide full network capability. The structure allows for fast saving and retrieval of test data whether it was stored moments before or dates back several years. The design also allows multiple machines to seamlessly use the same database for storing test settings and result data.

## Fast Search Wizard



No more wasting valuable time trawling through the database, the data is at your fingertips with the powerful search engine wizard

## Control at your Fingertips

Operators can configure and save custom settings so when returning to a machine, testing can commence immediately.



Simultaneous display of multiple items on the testing tab and the test group index

## Quick Start

The start-up check list allows an operator to quickly check the status of vital information allowing total confidence when testing starts.

## The Right Solution Whatever the Application

Whether you are looking for standard or specialized tests, Paragon is the solution for you. Catering for a wide range of applications, from the traditional to emerging bond tests, including soft landing for stacked die, LED and ribbon testing and DVS 2811 pull angle modelling, Paragon also gives you the option to measure energy for deeper analysis of bond strength and failure modes.

## Clear Upgrade Path

Take advantage of Paragon's advanced functionality with your existing Nordson DAGE 4000 and 5000 bondtester. Paragon is built on the strong foundations of the Nordson DAGE 4000's software so you can rely on full data integrity when upgrading to the new software as well as benefit from functionality including enhanced graphing and reporting. Operators will therefore be familiar with key features such as automatic display of critical test information.



## Specifications

### Desktop Computer

Processor	Intel Core 2 Duo (or similar)
Memory	2 GB Ram
Graphics	Separate graphics card with 128 MB RAM
Hard disk	160 GB SATA2
DVD	Read/Write
Monitor	17inch WS monitor supporting minimum resolution of 1440 x 900
Operating systems supported	Windows XP SP3, Windows Vista and Windows 7

### Laptop Computer

Processor	Intel Core 2 Duo (or similar)
Memory	2 GB Ram
Graphics	Separate graphics card with 128 MB RAM
Hard disk	160 GB SATA2
DVD	Read/Write
Monitor	Minimum screen resolution of 1440 x 900. If an external monitor is used the laptop resolution is not relevant.
Operating systems supported	Windows XP SP3, Windows Vista and Windows 7



## A Partner You Can Trust

Nordson DAGE is the market leading provider of award winning test and inspection systems for destructive and non-destructive mechanical testing of electronic components, taking pride in delivering support to both local and international organizations alike. Founded in 1961, with global headquarters in Aylesbury, UK, Nordson DAGE is part of the Nordson Corporation which has direct operations and sales support offices in more than 30 countries.

Nordson DAGE continues to invest significantly in research and development to remain at the cutting edge of bond testing technology. Nordson DAGE has a truly global presence and is recognized as the industry standard.

For more information, please contact your Nordson DAGE regional office or speak with your Nordson DAGE representative, all of which are listed on [www.nordsondage.com](http://www.nordsondage.com).

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