

# The Richard Desich SMART Commercialization Center for Microsystems

Nordson DAGE Case Study

Since opening its doors in 2011, The Richard Desich SMART Commercialization Center for Microsystems (Desich SMART Center), based at Lorain County Community College in Northern Ohio, has assisted manufacturers developing products with sensors and other silicon-fabbed devices to commercialize their products. Its aim is to reduce the significant cost and risk associated with developing microsystem-enabled products.

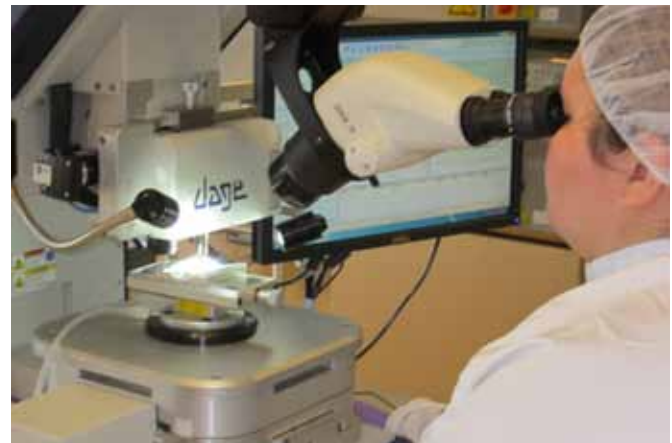
As a unique industry-focused resource, the Desich SMART Center provides both small and large companies with access to back-end microelectronics processing (packaging, test and inspection) equipment and expertise in the development of manufacturable processes for products that leverage the advantages of microelectromechanical systems (MEMS) and other sensor technologies.

## Evaluating the Options

In 2011, the Desich SMART Center team was looking to expand the Center's offerings by adding bond testing to its capabilities. Amongst the selection criteria, the team identified four essentials for their bondtester:

- The bondtester had to be versatile. If it could only support a narrow range of tests, then its benefits to the Center's variety of customers would be limited
- The bondtester had to be easy to use because not only would it be used by a regular influx of customers using it on an hourly basis, but also by students being trained in microsystem processing
- The results from the bondtester needed to be from a reliable company whose tool provided trusted and repeatable results
- The bond tester manufacturer had bring care and attention to all aspects of interaction with the tool, from initial shipping to continued technical support

Nordson DAGE with the *4000Plus* differentiated itself from the competition, completely fulfilling these key criteria and more.



4000Plus Bondtester in use at the Center

“ It is clear that Nordson DAGE put a lot of thought into the design of the *4000Plus* and the software. They care about the details—the intuitive joystick operation, the well-written manual, to even the shipping container—it has all been thought through. Thanks to how well the *4000Plus* Bondtester meets the variety of challenges we have and its impressive capabilities, the Desich SMART Center is a better facility. I can thoroughly recommend Nordson DAGE. ”

**Daniel Ereditario,**  
**Operations Coordinator**



### Nordson DAGE in Action

In October 2011, the Nordson DAGE 4000*Plus* Bondtester was installed shortly after the lab officially opened. It is the only bondtester that the Center has and is used for a diverse range of applications, using four load cartridges for:

- Tweezer pulls up to 1 kilogram, for coatings pull and thick wire pull
- Shear tests up to 250 grams, for wire bond ball shears
- Pull tests up to 100 grams, for wire bond wire pull
- Stud pull tests for die pull ups to 1 kilogram

One of the greatest advantages that the Desich SMART Center has benefitted from is quick changeover of the cartridges. The team has found the tooling time between tests is minimal – taking seconds to change over, rather than up to an hour, as in the case of some other testers' equipment.

Other key benefits have come from access to the Nordson DAGE expertise in testing technology and applications. The team at the Center quickly appreciated the high level of application knowledge and responsive that is given to customers. For example, when the Center required a software upgrade to support a customer's application, they had it within days.

### Why Nordson DAGE?

When it comes to purchasing a single instrument for a development lab such as the Desich SMART Center, it's vital to get it right. Not only did the Nordson DAGE 4000*Plus* Bondtester meet the original tender specification, but it has proved to be even easier to use than first expected.

It has more than met the brief of being a versatile tester that can adapt to meet different customers' needs. In addition, the students and customers have found the user interface incredibly easy to use and many have commented on just how intuitive the tool is.

**For more information,  
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