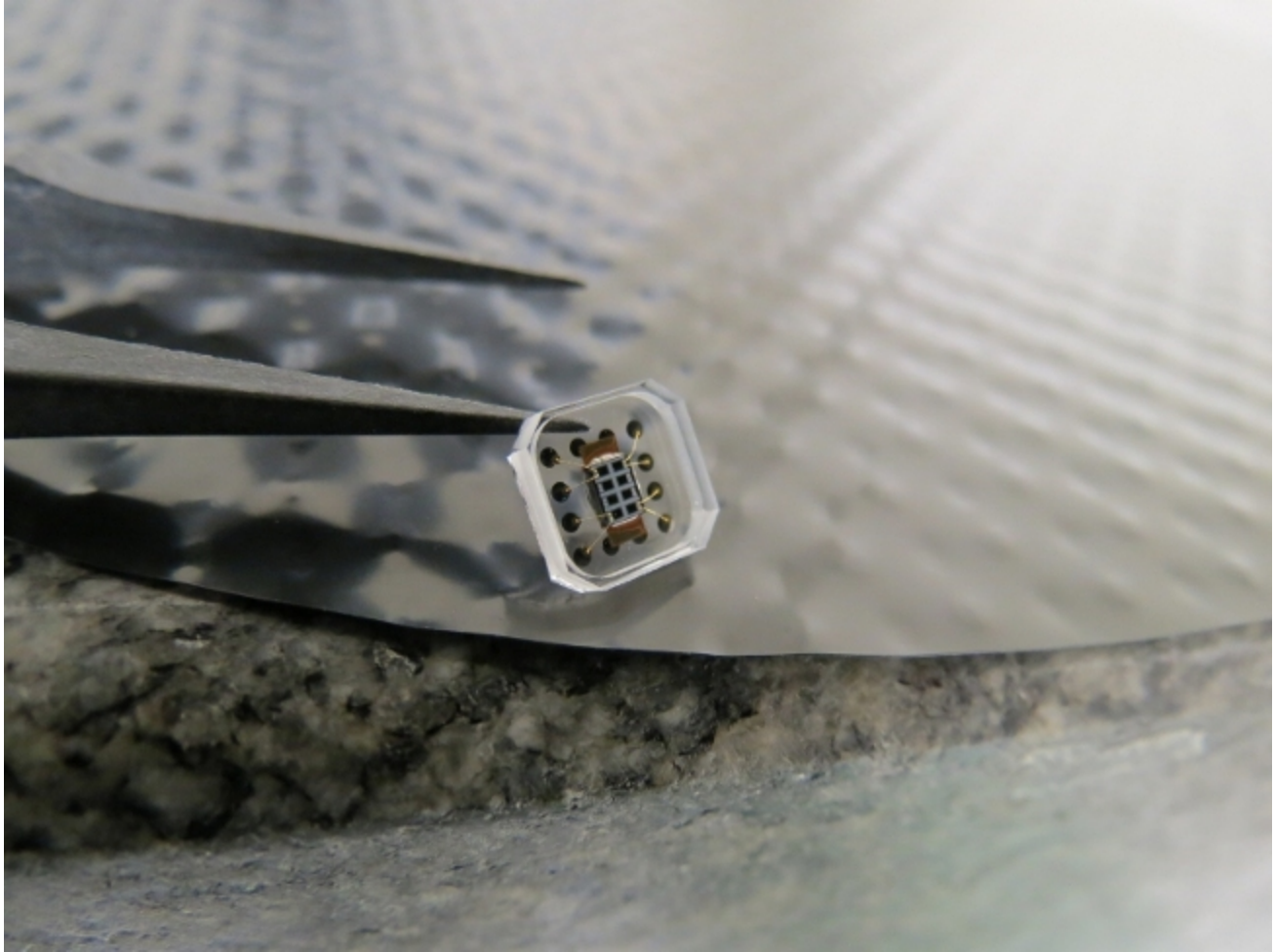


Primoceler and European Space Agency Present Glass Welding Stress, Functionality Test Results at IMAPS Conference.

Jan 07, 2016, 13:59 ET from [Primoceler Inc.](http://www.primoceler.com)

ORLANDO, Fla., Jan. 7, 2016 -- Primoceler (www.primoceler.com), a developer of novel electronics packing solutions, together with the [European Space Agency](http://www.esa.int) (ESA), has concluded a series of test to prove the functionality and robustness of a patented, proprietary glass welding technology. Those results were recently presented to IMAPS Conference attendees in Orlando, Florida.

"Originally designed to withstand any environment, our hermetically sealed packaging has already provided tremendous benefits to the ESA," explained Ville Hevonkorpi, general manager at Primoceler. "This technology has countless additional applications – some already in use, others theoretical. Discussing our test results at IMAPS provided the opportunity for industry leaders to see and understand the value of our low-temperature bonding innovation. Medical devices, sensitive electronics and other applications like CMOS sensors are just a few areas where process has potential to be a game changer."



All glass hermetic package

Primoceler's unique welding process joins substrates at the material interface, without the need for high heat or additives. Surface quality and even coatings are therefore fully preserved, a necessary quality when dealing with sensitive electronic devices. The process has been successfully used with several types of glass. Silicon-to-glass and sapphire welds are another option with this kind of bonding.

After rigorous performance testing, Primoceler has shown that its welding and high-volume manufacturing process sets a high standard. Packages were subjected to 100 rapid temperature cycles, from -55C to 175C. No visual or performance impacts were observed. A test for moisture resistance provided similarly strong results. The hermeticity of the glass packages was likewise demonstrated to be significantly superior even to military requirements. The opto-electrical performance of the packaged components was checked at three points – initial assembly, after lid welding and after stress testing. One hundred percent of the components performed well within specifications every time.

The performance results further raise the packaging industry's interest in glass. Not only is it a hermetic material, but it's also cheap and easily available. Currently all the major companies (Schott, AGC and Corning) have brought extremely thin glass substrates to the markets. The

materials are "off the shelf" and a separate grinding process is not necessary. These Ultra Thin Glasses (UTGs) benefit Primoceler's packaging technology; the low amount of heat does not warp or bow the wafer and the potential applications are nearly limitless.

The key advantage of the technology is that it enables electronic components to become smaller while still preserving performance and protecting delicate circuitry. Currently, mobile devices are at the forefront of this type of innovations. Soon, the rapid growth of the Internet of Things (IoT) will increase the need for smaller electronics packages. Primoceler is ready to meet this demand. With a processing speed of 4 to 10 minutes per wafer, the technology is ready for mass production.

The ESA and Primoceler are currently in partnership to develop even more cutting-edge device packaging solutions that build on the breakthrough of low-impact glass welding. In the meantime, Primoceler is joining to the Packaging Research Center at the [Georgia Tech Research Consortium](#), where industry leaders and academics work together to design and develop the next generation of packaging solutions.

Primoceler is also invited to [Photonics West](#) the biggest trade show in the industry to present the technology to the audience. Anyone interested should head to the Moscone Center in February.

In other news, Primoceler is working on a new partnership with several major industry players as part of ramping up its production capacity. Hevonkorpi added that negotiations are going well. "Expect an exciting announcement in the first quarter of 2016," he added.

About Primoceler Inc.

Founded in 2010 and located in Tampere, Finland, one of the leading European hubs for laser and photonics industry and research, Primoceler partners with its clients to create success through new business opportunities. The company's tailor-made microfabrication solutions have not only improved manufacturing processes but also revolutionized microscale bonding of transparent materials and enabled completely new product portfolios and business opportunities in semiconductor industry and medical technology.

Contact:

Antti Peltonen
Primoceler Inc.
+1 424 289 5406
[Email](#)
www.primoceler.com

Photo - <http://photos.prnewswire.com/prnh/20160106/319875>