

## ESI Joins Georgia Tech 3D Systems Packaging Research Center With Addition of its Latest IC Packaging System

ESI's CornerStone™ ICP platform will facilitate the center's ongoing 3D packaging and system scaling research, focusing on accelerating global co-development with end users and supply chains.

PORTLAND, Ore., March 22, 2016 (GLOBE NEWSWIRE) -- Electro Scientific Industries, Inc. (NASDAQ:ESIO), an innovator of laser-based manufacturing solutions for the micromachining industry, today announced that they have joined the Georgia Institute of Technology 3D Systems Packaging Research Center (PRC) as a full member. As part of the partnership, ESI has installed a CornerStone™ ICP UV laser drilling system at the center in order to further enable on-campus R&D into via formation for future redistribution layers (RDL) used in microelectronics. With its best-in-class microvia drilling capabilities for size and accuracy, the CornerStone™ ICP system is a good fit for the center's research into the most demanding next-generation applications.

"The CornerStone™ system is a valuable addition to the PRC global industry program," commented Dr. Venky Sundaram, PRC Associate Director for Industry Programs. "Working with the ESI team, 8-10µ diameter vias at 20µ pitch for multilayer RDL have already been demonstrated on glass interposers."

"ESI's expertise in laser drilling is a very critical part of our 3D Packaging Strategy at Georgia Tech," added Prof. Rao Tummala, Center Director of PRC. "This technology is a key part of the consumer-driven, high-performance and automotive applications that we are pursuing."

"As the semiconductor and associated packaging technology moves to next-generation substrates in support of new products and industries, the requirements for size, shape, accuracy and precision have become increasingly demanding," stated Michael Darwin, General Manager of the Industrial Products Division at ESI. "The CornerStone™ system addresses those demands at industry-leading productivity levels, enabling ICP manufacturers to take advantage of current and next-generation packaging technologies."

The Georgia Tech center focuses on high-performance systems research related to wearable electronics, Internet of Things (IoT) devices, automotive end markets and bio-electronics, for the purpose of fostering cross-disciplinary education and industry collaboration. Over 50 global companies are participating in the center's research programs, targeting areas such as System-on-Package (SOP) and system scaling. The PRC is also a leading center for applied research into IC Packaging technologies and best practices. With its industry partners, it is pioneering research into glass packaging as the next platform beyond organic packaging, and demonstrated the first prototypes of high-density glass substrates in 2013. This technology is being commercialized by several partners in Taiwan and Japan, while the center is focusing on continued research into the next-generation of 2.5D and 3D interposers, targeted to use ultra-fine interconnect pitches down to 20µ.

Laser systems are widely employed for drilling vias in organic substrates used for IC packages, with via dimensions in leading-edge substrates around 40-50 microns in diameter. The Georgia Tech PRC-ESI co-development program will include research into combining the superior dimensional stability of glass substrates with the small via and high-accuracy capabilities of the CornerStone<sup>TM</sup> ICP system; demonstrating on large panels, the very fine pitch sizes that are currently only possible using silicon interposers.

## Via Drilling Expertise

The CornerStone<sup>TM</sup> ICP system is designed to enable semiconductor device fabricators to meet the most stringent requirements for the smallest vias at the highest level of accuracy. It is part of ESI's extended portfolio of laser-based via drilling tools, addressing a wide variety of materials and dimensions for both through-hole and blind via formation. CornerStone<sup>TM</sup> delivers drill rates that significantly outperform other high-volume manufacturing (HVM) laser drilling systems, resulting in a significantly lower cost of ownership.

## **About ESI**

ESI's integrated solutions allow industrial designers and process engineers to control the power of laser light to transform materials in ways that differentiate their consumer electronics, wearable devices, semiconductor circuits and high-precision components for market advantage. ESI's laser-based manufacturing solutions feature the micro-machining industry's highest precision and speed, and target the lowest total cost of ownership. ESI is headquartered in Portland, Ore., with global operations from the Pacific Northwest to the Pacific Rim. More information is available at <a href="https://www.esi.com">www.esi.com</a>.

Media Contacts:

McKenzie Worldwide

Rob Goodman

503-380-2441

robg@mckenzieworldwide.com

ESI, Inc.

Brian Smith

503-672-5760

smithb@esi.com



Source: Electro Scientific Industries, Inc.

News Provided by Acquire Media