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ESI Launches New Geode CO2 Laser Drilling System for HDI Rigid Printed Circuit Board Manufacturing

December 4, 2018

New system combines dramatically increased throughput with the accuracy and flexibility required for advanced 5G applications–all in a smaller, lighter package

PORTLAND, Ore., Dec. 04, 2018 (GLOBE NEWSWIRE) -- Electro Scientific Industries, Inc. (Nasdaq: ESIO), an innovator in laser-based manufacturing solutions for the micro-machining industry, today announced the availability of its Geode™ laser-based micro-via drilling system for high-density interconnects (HDI) on rigid printed circuit boards (PCB). This new entry from a pioneer in PCB processing combines a CO_2 laser and advanced beam control capabilities to deliver industry-leading throughput and accuracy from a system that is significantly smaller and lighter than current competitive offerings. The system's sophisticated beam steering and pulse shaping technologies provide the flexibility and control that will be required for 5G applications using high-frequency compatible materials and finer-pitched interconnects fabricated with modified semi-additive processes (mSAP).

"The Geode leverages ESI's decades of experience in laser optics and laser-material interaction to deliver a system that out performs and out produces anything on the market," stated John Williams, vice president of marketing, ESI. "Other HDI laser systems are based on legacy mechanical drilling platforms that were large and heavy, the Geode system's design is based on a lighter-weight, smaller-footprint platform that is purpose-built from the ground up specifically for HDI laser processing. This design not only helps Geode meet the high-accuracy, high-throughput requirements of processing applications such as 5G, but also makes it a more cost-effective platform for our customers to install and maintain."

The Geode system uses a powerful 9.4µm pulsed CO_2 laser, emitting infrared radiation ideally-suited for rigid PCB materials. Its HyperSonix™ technology shapes laser pulses to improve throughput and via quality. AcceleDrill™ distributes pulse energy to improve throughput and via metrics and also permits multiple via sizes in a single pass. VDC (via density compensation) controls local heating to minimize heat-affected zones and improve accuracy, throughput and diameter stability. The Geode system is the first CO_2 laser via drilling system to incorporate such high level beam control and beam steering technologies.

For more information please visit http://bit.ly/2AJzCTi or stop by ESI's booth (1Q01) at HKPCA, December 5-7, 2018.

About ESI, Inc.
ESI's manufacturing systems are designed to enable manufacturers of electronic components and devices to optimize their production capabilities and commercialize technologies through laser processing. ESI's systems provide more control, greater flexibility and more precise processing of a wider range of materials. The result is higher production quality, faster throughput and higher yields; allowing customers to more easily meet new and challenging customer requirements, consistently meet aggressive production goals and better control costs. ESI is headquartered in Portland, Oregon, with global operations from the Pacific Northwest to the Pacific Rim. More information is available at www.esi.com.

Company Contact:
Dale Paulin
Marketing Operations Manager
Phone: 503-671-5510
Email: paulind@esi.com

Agency Media Contact:
Sandy Fewkes
MindWrite Communications, Inc.
Phone: 408-529-9685
Email: sandy@mind-write.com

Source: Electro Scientific Industries, Inc.